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MEMORANDUM FOR THE RECORD

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FOREWORD

THIS NUMBER of the *Review* presents the first of a group of five new topics adopted by the Editorial Board in 1938 and 1939 to cover various subject fields in the school curriculum. The five areas adopted are: language arts, fine and applied arts, social studies, natural sciences and mathematics, and physical and mental health. The remaining four areas will appear in their course during the third cycle of the *Review*, embracing 1940, 1941, and 1942. Certain other topics in the list of fifteen were changed to afford a better coverage of the broad field of educational endeavor.

It is planned that the issues for these five subjectmatter areas will deal with research in all aspects of the fields. Specifically, it is expected that they will include treatments of the aims and objectives, the curriculum, the methods of teaching, materials of instruction, the psychology of the subject, tests and measurements, and any other pertinent aspects. Further, each issue should treat all appropriate levels, from nursery school thru university and adult education.

In the past, these different aspects have been scattered among a number of treatments appearing in various issues, chief of which were the Curriculum, Special Methods and Psychology of the Elementary-School Subjects, and Psychology and Methods in the High School and College. Some material also appeared in the issues on Educational Tests and Their Uses; Psychology of Learning, General Methods of Teaching, and Supervision; and Psychological Tests and Their Uses. Preceding treatments of material in the present issue will be found in issues of the *Review* for April 1937, December 1937, and February 1938. Also, lesser amounts of material in the language arts area will be found in issues for June 1938, December 1938, and June 1939. Indexes in the December 1937 and later issues will aid in locating desired reviews.

One reason for the reorganization of topics was the large amount of duplication that occurred in the various repetitive treatments under the several different but closely related heads. Another reason was the heterogeneity of some of the topics scheduled. The principal reason, however, was the belief that the new issues would be of service to a wider range of users, because of their organization in terms of instructional areas. These new subjectmatter issues do not fall so readily into the accustomed areas of specialization of university research workers. They are much more difficult to prepare, and make greater demands upon the qualifications and the energies of the committee. It is hoped that they will render a larger service to a greater number of users and thus justify the increased effort that they call for.

DOUGLAS E. SCATES,
Chairman of the Editorial Board.

INTRODUCTION

AN ISSUE of the *Review of Educational Research* devoted solely to the consideration of language arts studies is a new departure, initiated recently by the Editorial Board. The committee which prepared the manuscript is keenly aware of the difficulties with language expression accurately to depict their conceptions of the field as a whole or of the relationships among the various aspects of the field which are considered in this review. The chapter organization is so traditional and structurally obvious that there is danger of giving the impression that the committee thought of the field as being merely a composite aggregate of many elements. However, a substantially different view was actually the basis for its consideration.

Language serves the human functions of expression and communication. Particular media used to implement these functions depend upon circumstances. Whether one should use sound symbols, visual or aural stimuli, dramatic presentation, or some other type of technic is a problem to be decided by the conditions which prevail in the situation at hand. Similarly, the decision must be made whether the language forms of English, German, Latin, Chinese, mathematics, and music are most adapted for the needs to be met. In any case, the basic functions of expression and communication are the ones which are being implemented.

The process of reading language expressions is a fundamental factor in all communication. Researches in that regard are reported in a position of priority for that reason. The English language is the prevailing form in the society affected by this review. Researches concerning it properly follow those with regard to reading. Other classical and modern language forms are next considered. Finally, consideration is given to particularized aspects of special forms of language technics. Very few studies of the interrelationships of special language forms as manifestations of general language functions have been reported. That area should be a fruitful one for investigation.

The reviewers have sought to cover the researches bearing upon their respective assignments as they affect every level of the educational system and with regard to questions concerning curriculums, psychological aspects, and instructional methodology or materials.

PETER L. SPENCER, *Chairman,*
Committee on the Language Arts.

CHAPTER I

Reading¹

WILLIAM S. GRAY, with the cooperation of LUELLA COLE, ARTHUR I. GATES, RUTH STRANG, ARTHUR E. TRAXLER, and PAUL WITTY

DURING THE LAST THREE YEARS more than three hundred scientific studies relating to reading were published (52, 53, 54). The selection of findings of major importance and their presentation and interpretation within a brief space have proved a challenging task. In order to insure a relatively high degree of thoroughness and accuracy, the bibliographies prepared annually by the writer covering the period from July 1, 1936, to June 30, 1939, were checked for completeness by Cole, Gates, Strang, Traxler, and Witty. These collaborators then checked all the references which in their judgment contributed significantly to an understanding of reading problems among children and adults. Each also submitted a list of topics or issues which seemed most fruitful for discussion. On the basis of these recommendations a summary was prepared by the writer and submitted for criticism. A final draft of the chapter was then prepared.²

Because of the limited space available, it has been impossible to include reference to as many of the studies as would otherwise be desirable. Furthermore, it has been necessary to limit to the minimum critical comments concerning the technics used in the various studies.

Changing Conceptions of Reading

One of the striking facts revealed by this survey is that a broader conception of reading and a clearer recognition of its relationships are emerging. Although trends in these respects were not studied specifically by any investigator, an analysis of the assumptions underlying many of the recommendations showed clearly that significant changes are occurring.

Of major importance is the fact that reading has been defined with increasing frequency of late as a form of experience that affects the outlook and behavior of pupils. Although a large proportion of the studies reported were concerned chiefly with the basic habits and skills involved, attention was directed far more often than in the past to the implications of the findings in respect to the development of insights and understandings, interests and attitudes, and rich and stable personalities. This change in emphasis promises not only to modify materially the procedures used in teaching reading in the future but also to increase greatly the functions served by reading in general education.

In the second place, increasing emphasis has been given recently to important relationships between reading, language, thinking, and ex-

¹ Bibliography for this chapter begins on page 154.

² The survey of reading research by Holmes (69) appeared after the present manuscript had been completed. A citation is included in the bibliography for reference purposes.

perience. The need of studying language forms and semantic variations in word meanings in interpreting a passage has been emphasized vigorously by specialists in reading as well as in language. Furthermore, certain authorities maintain that progress in reading can be greatly increased through growth in ability to write and to speak effectively. They recommend that experiments be organized to determine the validity of these assumptions and the methods by which progress in reading and the other language arts can best be achieved.

In the third place, basic assumptions concerning the place and relative value of reading as compared with other forms of learning have changed significantly during recent years. In former decades reading was emphasized more vigorously in most classrooms than any other form of learning. During recent years, however, the rapid development of the radio, motion pictures, and other visual aids have introduced new possibilities in teaching and have modified the demands for guidance which the teacher should give. As a result, there is a growing recognition of the fact that one of the major problems which schools face today is to train boys and girls to react intelligently to all they hear, see, and read. The acceptance of this view raises a series of challenging questions. For example, under what conditions can each of the various aids to learning be used to best advantage? What is their relative importance for pupils of different levels of ability and maturity? To what extent do motion pictures, the radio, and direct contact with reality provide a satisfactory preparation for or sequel to reading?

The changing conceptions and new issues referred to previously suggest the need for types of investigations which have received little attention in the past. They also indicate the need for changes in teaching procedures which recognize, (a) the broader functions that reading may serve in promoting child development, and (b) the functional relationships between reading, language, and other aids to learning.

Sociology of Reading

Increasing interest was expressed during the last three years in the social values of reading—that is, in its contribution to citizenship, social sensitivity, personal and social adjustment, and vocational success, and to the social factors which influence the amount and distribution of reading among people of all ages and walks of life. As a result of an elaborate study by Waples (143) of the effect of the depression on reading, five major purposes which induce people to read were identified: “to follow the news”; “to find evidence”; “to experience thrills”; “to improve vocational competence”; and “to defend class interests.” An analysis of the modes of reading commonly used in defending class interests resulted in identifying three which differ significantly: “uncritical,” “partisan,” and “highly critical.” These findings have obvious implications with respect to problems which schools face today. In concluding his report

Waples maintained that a sociology of reading can be developed "in so far as we learn who reads what and why, over consecutive periods of time. This supposition rests on two assumptions: that what people read can be used to describe their attitudes, and that the people whose attitudes are of most interest to sociology in the study of public opinion actually read enough to reveal their attitudes" (143: 200-201).

Evidence of the distribution of certain types of reading material in this country was secured by *Life* (86) which arranged for 13,045 interviews to determine the number of people who read or look into a typical issue of *Colliers*, *Liberty*, *Life*, or *Saturday Evening Post* within four weeks of its issue. The data secured indicated that 57 percent of our population, ten or more years of age, see one or more of these magazines each week. This resulted in an assumed or projected total audience of 60,900,000. These findings correspond closely with earlier reports to the effect that about half the people in this country read magazines. Further evidence of the distribution of reading materials was secured by Krieg (78) who made an analysis of the library circulation during a four-week period in a middlewestern manufacturing community. The study showed that children borrow books more than adults, girls more than boys, and men about as often as women, and that students and housewives use the library more than any other classes. The data showed also that whereas accessibility is a vital factor in the use of books, there is a "dead spot" between easy walking distance and more remote centers from which people come by car or bus.

Studies of the reading among different groups reveal facts of large significance. Egan (32) found that CCC enrollees preferred fiction and cared least for inspirational or "educational uplift types of books relating to personal development." Her data indicated also a marked superiority in reading ability on the part of those who liked given books regardless of their difficulty. Furthermore, the lower the level of schooling and efficiency in reading the greater the number of books disliked. Additional evidence of the positive relationship between schooling and amount of reading was secured by M. Smith (119) who studied the circulation of farm magazines. The data collected revealed a correlation of .82 between the circulation of farm magazines and literacy rating and of .47 between circulation and status of the educational system, using teachers' salaries as a criterion.

As the social significance of reading is recognized, students of reading and of sociology are becoming increasingly concerned about the quality of the reading done. In this connection Malan (91) compared the circulation data of ten magazines representing three main levels of quality. He found that "the total circulation of three representative first-rate general magazines had to be multiplied by twenty-five before it equalled the combined circulation of three general second-rate magazines." On the basis of all the data secured, Malan estimated that "for any first-rate magazine read,

fifty second-rate and one hundred pulp magazines are read." If reading is ultimately to affect the cultural level of America, it is obvious that notable changes are desirable in the reading interests and tastes of children and adults.

The kinds of materials read in general by different elements of our population have so many implications that Wert (145) attempted to develop a technic for determining levels of group reading. He assumed (a) that the quality of all reading done by a group can be noted by the quality of the magazines read by that group and (b) that the quality of one magazine is higher than another if the average reader is higher in scholastic aptitude, ranks higher in English proficiency, and shows a greater knowledge of contemporary affairs. By giving a battery of tests covering these items and by securing information concerning magazines read regularly and those read occasionally, he classified magazines into different levels of quality. Using the *Saturday Evening Post* as a base quality, he developed an index number for each of thirty-nine magazines. When these ratings were applied to different groups he found that entering freshmen present an average reading level coincident with the *Saturday Evening Post*, the quality increasing throughout the college period, and then decreasing somewhat for adults in the community.

Three impressive lessons taught by the facts presented above are: (a) that reading may serve diverse purposes in social life and among different population groups; (b) that the quality of the material read by the nation as a whole is far too low to justify complacency; and (c) that the reading level of the nation may be greatly increased through schooling and appropriate guidance.

Physiology and Psychology of Reading

For almost a century, investigators have been concerned with problems relating to the physiology and psychology of reading and with their interrelationships. Such problems continue to stimulate wide interest. Of major concern in this field is the relation of intelligence to progress or achievement in reading. Leavell and Sterling (82) secured correlations between intelligence and such basic factors in reading as number and duration of fixations, number of regressions, span of recognition, and rate and comprehension. The records showed that the more intelligent children did much better on the average in all the factors studied than did the less intelligent. The statement should be added that the amount of superiority revealed varied with the intelligence test used.

Oral reading—The relative amount of mental effort required in oral and silent reading has also provoked wide discussion during recent years. In a study involving adult subjects, Knott (76) used the electro-encephalographic technic and secured records of "brain potentials" for a control period and during oral and silent reading. The average wave frequencies per second were 11 for the control period, 13 during silent reading, 15

during oral reading, and 11 for a final control period. He concluded that there is a more complex "functional structuring" of the critical areas during oral than silent reading. This fact can be readily explained. In oral reading one is concerned not only with a clear grasp of meaning but also with its presentation to others.

Eye movements—The nature of eye movements, particularly in silent reading, continues to be studied widely. As a result of a critical review of 188 studies and reports relating to eye movements in reading, Tinker (132) identified the following trends: (a) to make studies of oculo-motor behavior in reading special types of material, such as the foreign languages, formulas, numerals, etc.; (b) to use an adequate number of subjects to insure statistical stability of the data secured; (c) to analyze the reading process by studying the oculo-motor patterns which vary with changes in reading material and attitude; (d) to give greater attention to the validity and reliability of the records secured; and (e) to secure increased cooperation between research workers and practical educators.

Tinker (133) also checked the reliability of records of eye movements in reading by photographing the eye movements of 57 freshmen and 77 sophomores in the University of Minnesota with reading materials varying in length and in difficulty. He found that even for short selections eye-movement records have "adequate reliability where group comparisons are concerned," that "reliability increases slightly with practice in reading before the camera," and that to insure adequate reliability "a practice trial in reading before the camera should be given." As a result of the work of Imus, Rothney, and Bear (72) the use of eye-movement records in individual diagnosis was seriously questioned on the ground of unreliability. They concluded also that the use of the standard paragraphs prepared for use in the ophthalmograph were too short to insure valid individual records of eye movement.

Studies made during the last three years confirm and supplement the findings of earlier investigations concerning the behavior of the eyes in reading. Tinker (131), for example, compared the amount of reading time required for eye movements with the total reading time and found that it was less than 10 percent for all types of material. "In general, the more careful and analytical the reading, the smaller the relative time taken by moves." This implies that the length of the reading time is determined chiefly by the amount of time required for recognition and interpretation. Furthermore, as the difficulty of the material read increases, a relatively greater proportion of the reading time is occupied by the pauses. This holds true for good readers as well as poor readers, as shown clearly by the studies of Anderson (3). Confirming evidence was secured also by Fairbanks (35) who found a close but not perfect relationship between eye movements, number of errors in oral reading, and unfamiliarity with the words of a passage. "Other variants in context, such as punctuation marks and sentence structure, also affect eye-movement behavior." This

relationship is less close in good reading than in poor reading which indicates that the good reader is less disturbed by the mechanics of reading, is able to adjust himself more successfully to the varying demands made upon him in reading, and is able to maintain more constant eye-movement behavior.

As a result of a comparison of 52 stutterers and 56 normal speakers, Moser (96) secured evidence which suggested that stuttering may be accompanied by lack of control of the muscles of the eyes. He interpreted his data as supporting the view that stuttering may be a generalized neuro-muscular derangement and may account for certain reading disabilities. The fact is well known that unfavorable neurological conditions do affect progress in learning to read. It would be unwise, however, to assume that all stutterers are pathological in respect to their neuro-muscular mechanism.

Other facts relating to the physiology and psychology of reading will be presented in later sections referring to speed of reading, comprehension, oral reading, and reading disability.

Reading Readiness

The fact that all children are not equally well prepared to learn to read at the beginning of the first grade has been recognized in numerous reports published during the last three years. The practical implications of these facts vary widely, according to different writers. For example, Witty and Kopel (151) expressed the opinion following a critical review of the literature pertaining to reading readiness that reading should be delayed until children's background of experience and mental growth enable them to find meaning in the tasks presented to them; and until this process of maturation has engendered a condition in which reversals are few and perception of words and other meaningful units is possible. They proposed, furthermore, that reading should be postponed for most children until they are about eight or nine years old, although some will turn spontaneously, joyfully, and successfully to reading in Grade I (or earlier).

A different point of view was presented by Gates (43) who summarized evidence secured from four groups concerning the relations between mental age and progress in learning to read in Grade I. In his judgment the data obtained did not justify the postponement of reading until children are eight or nine years of age. Through the use of modern methods that are well adjusted to individual differences, he found that reasonable progress in learning to read was made by most of the pupils involved in the study. The fact was pointed out, however, that the results of his study did not answer the question, At what age is it best to introduce reading to pupils? He maintained that the answer must be based upon investigations of the value of introducing reading at different stages of child development, by methods so well adjusted to the pupils that they would all learn to read successfully. This view implies that the basic problem which the school faces is to determine when it is educationally most advantageous

to introduce reading into the curriculum and then make such adjustments in the methods and materials used as will enable each individual to make satisfactory progress in learning to read. It is obvious that the proposals of Witty and Kopel on the one hand and of Gates on the other differ in basic philosophy and in practical implications.

That pupils who differ widely in maturity and in reading readiness progress at different rates in learning to read was shown clearly by Boney and Agnew (15) who measured the progress of twenty primary grade children and recorded the number of teacher-minutes per year for each child. The evidence secured did not support the assumption that young children cannot learn to read. It led the investigators to conclude, however, that the number who have not attained reading readiness is so great that it is more or less impractical to attempt to teach them to read in classrooms with large enrolments. The results of this study, as well as those of Gates, emphasize the importance of two steps that should be taken by all schools: the early study of types of growth that should be stimulated before and during the time that reading is introduced; and the use of methods and materials in teaching reading that are adapted to the needs and levels of maturity of the pupils and that will promote reasonably rapid progress on the part of each pupil without undue expenditure of time and energy by the teacher.

A second significant issue studied relates to factors associated with reading readiness. Practically all investigators agreed that mental age is a very important factor but by no means the only one that should be considered. As indicated in a preceding paragraph, Gates (43) found that the correlation between mental age and progress in learning to read differed significantly for groups taught by appreciably different methods and materials. As will be pointed out later the correlations differ also according to the mental test used. In respect to pupils who are somewhat retarded mentally, Gates and Russell (49) found that a carefully planned preparatory program for a semester plus nearly a half year's growth in mental age resulted in more rapid progress in learning to read than was made by a control group which did not have such advantages. The investigators emphasized the fact that mere delay was not sufficient. Each pupil encountered needs and deficiencies which must be faced and provided for, as such, and which could not be removed by mere delay in beginning reading.

When the influence of chronological age was studied the result showed that it was far less significant than mental age. According to Petty (101), age is not important when the members of the group are at least six years old and do not vary greatly in age. Falk (36) found that children with chronological ages between five and one-half and six and one-half years seemed to have an advantage over children who entered the first grade at earlier or later ages.

Of large practical significance are the findings of Hilliard and Troxell (65) who reported that pupils who have a rich informational background make more rapid progress in learning to read than do those of meager background. Furthermore, Wilson and others (149) presented evidence that ability with letter forms and sound correlates highly with progress in learning to read. For example, the kindergarten and first-grade children who knew the most letter forms and sounds tended very definitely to be among the first to learn to read and to be the best readers. The investigators rightly emphasized the fact that the types of ability with which we are here concerned should not be the product of formal training "on learning names and sounds of letters and combinations of letters" but rather the result of guidance in learning situations that involve vital content. Petty (101) also found that ability to distinguish between visual symbols is important to success in beginning reading and that eidetic ability may exert a positive influence.

Reference has already been made to the fact that a carefully planned program of training is valuable in promoting reading readiness. The evidence presented by Gates and others is supported by the findings of Petersen (100) who classified entering first-grade pupils into ready-to-read and transition groups. The former were assigned directly to reading classes; the latter were given special orientation courses and then introduced to reading. The results at the end of the year indicated that the plan in general had been distinctly successful. Records secured by Woods and others (153) showed also that the use of transition rooms for children mentally or otherwise unready for reading resulted in reducing the percent of failures from 20 to 11.

Validity of Reading-Readiness Tests

The final problem in this general area which was considered in detail relates to the validity and reliability of reading-readiness tests. The most significant general statement that may be made in this connection is the conclusion of Witty and Kopel (151) following a critical survey of the literature relating to reading-readiness tests: When used in conjunction with an intelligence test and teachers' judgments of reading readiness in terms of health and physical and social maturity, they (reading-readiness tests) appear to be very helpful in determining when children should begin to receive reading instruction. Of the tests used by Gates and others (47), the following were found to be most successful: word recognition; ability to complete a partially told story; giving words which begin or end with the same sound as an example; blending word sound; ability to read letters of the alphabet; and ability to listen to, understand, and make use of the teacher's instructions in beginning reading. The investigators also pointed out the fact that the extent to which the teacher's methods influence the pupils' technics of learning may also affect the predictive value of the tests.

Concerning the relative predictive value of mental tests and reading-readiness tests the findings reported differ with the specific tests used. In general, however, the correlation between reading-readiness tests and progress in learning to read was greater than between mental age and subsequent attainments in reading. Fendrick and McClade (40) found that the use of certain reading-readiness tests added little to that of a mental test in predicting progress in beginning reading, due to a very high correlation (.94) between the two types of tests used. They concluded, however, that a critical utilization of both tests enhances their significance for prediction of first-grade accomplishment.

The results of studies of the relative value of reading-readiness tests were interesting and suggestive. The correlations with subsequent achievement in reading varied from about .40 to .70. Because of the number of reading-readiness tests used in each study and the widely different measures of reading achievement used, final conclusions concerning the relative merits of available reading-readiness tests cannot be drawn. According to Gates (44) the teacher will profit most from reading-readiness tests if he concerns himself with the pupil's status in each test and arranges the work to conform to it. This view does not deny the value of the total score. When only the total score is used, however, much, if not most, of the information of value for the guidance of the pupil is lost and the predictive value is often lowered.

Methods of Teaching Beginning Reading

Evidence of wide interest in improved methods of teaching beginning reading is found in the large number of studies published since July 1, 1936, that relate to this topic. A radical change in both the theory and practice of teaching reading was proposed by McDade (90) who set up an experiment to determine whether it is possible to teach children to read not less well, as measured by standardized tests, by purely non-oral methods than by current oral methods. The theory advanced in support of the use of the non-oral method was that oral methods tend (a) to center attention on words and their utterances, thus obscuring meanings, and (b) to retard rate of reading because of the unfortunate habit of inner speech which is cultivated. The results of the experiment showed that the first-grade pupils taught by non-oral methods compared more than favorably with classes taught by other methods in silent reading achievement. No records were secured of achievement in oral reading. It is in harmony with expectation that the pupils should excel in those phases of reading which were emphasized by the methods used. The statement should be added that the evidence now available does not support the basic assumption made by McDade that inner speech as distinguished from lip movements, while reading, is undesirable and can be readily eliminated.

Reading materials—Two studies (51, 146) reported evidence of the value of Read-O, an educational game covering the vocabulary of the first two

grades and designed to speed up the acquisition of vocabulary through the introduction of the play attitude in learning to read. In the judgment of Goforth (51) one of the significant values that attaches to the use of play activities is the greater interest, happiness, and satisfaction which the child experiences in learning in this way. Efforts to improve the teaching of reading through the use of methods and materials that arouse interest and bring satisfaction should undoubtedly be encouraged. It is important, however, that the methods used should arouse interests and satisfactions that attach to reading as an activity and that will promote greater interest in learning to read and in engaging in reading activities.

The best medium through which to introduce reading was considered by several investigators. C. A. Smith (118) studied the relative merits of several types of reading programs in a small city system, namely (a) no basic books, much activity; (b) no basic books, work based on children's interests; (c) some basic books, work based on children's interests; (d) work based largely on book materials; (e) work based solely on book materials. The investigator reported that the experience method provided contact with more words and secured more repetitions than did the basal readers studied. Concerning the number of books read during the year, methods *a*, *b*, and *e* ranked about equally high; with respect to the number of words learned the order was *c*, *a*, *d*, *e*, *b*. Smith pointed out that many significant factors could not be controlled in this study. He believed that the results were sufficiently valid to merit further investigation in this field.

The relative advantages of the use of preprimers and of materials presented through the use of slides were studied by Jardine (73) in the case of equated 1-B classes. When the Metropolitan Achievement Test was given it was found that the group using the slides had made the greater progress. An analysis of the records showed that the slower learners profited most from the use of the slides. As pointed out by Jardine, this procedure involves a large amount of work on the part of teachers but permits of the adaptation of reading materials to the needs of pupils. Without doubt this characteristic of the plan is of far greater significance than the specific form of presentation involved. In harmony with the findings of previous investigators, Houston (70) discovered that first-grade groups with whom manuscript writing was used in early reading activities made more rapid progress than equivalent groups with whom cursive writing was used.

Procedures in Teaching Reading throughout the Grades

Closely related to the preceding group of studies are those which relate to the merits of different procedures throughout the elementary school as well as in the first grade. Wrightstone and others (155) were concerned with the progress in speed and comprehension in reading of pupils in eight "activity" and eight "non-activity" schools. The data secured showed that the pupils of the activity schools made scores "essentially equal to the con-

ventional program in the knowledge and skills that enter into reading comprehension" and into speed of reading; superior results were secured in attaining such objectives as grasping and interpreting facts and data. These results lend support to earlier conclusions to the effect that specific plans of organization and methods of teaching are by their very nature calculated to secure certain results more effectively than others.

Metronoscope—The value of the use of the metronoscope was studied by Lee (83) who used it in various grades for a portion of the reading period each day throughout a year. He reported that since this plan was adopted the number of retentions in the first grade had been materially reduced. Furthermore, the scores on standardized reading tests throughout the school were from 11 to 95 percent better among those receiving metronoscope practice than among the control pupils. Unfortunately, the study makes use of only one method of improving the teaching of reading. It is impossible, therefore, to conclude from this study that the use of the metronoscope has advantages not inherent in other methods of teaching.

Typeuriting—During recent years various studies have been reported concerning the value of the typewriter in promoting progress in reading. As a result of a critical survey of the reports of these studies Haefner (58) concluded: "While the volume of experimental evidence is somewhat limited, it may be safely concluded that the typewriter influences elementary-school reading in a positive manner and to an important degree. And the unexplored possibilities of the machine in relation to reading are so many and so attractive as to warrant much further careful, detailed research."

Basal readers—The need for basal readers in an elementary-school reading program has been widely discussed during recent years. Boney (14) reviewed the arguments in support of and against their use and presented data which showed that in certain cities where basal readers were not used pupils compared favorably on the average with the norms for Grades IV, V, and VI, and in one case for Grade III. He concluded on the basis of this evidence that the use of basal readers might be discontinued without loss. Unfortunately, the issue has usually been discussed in terms of two extreme positions, namely the use of no basal materials versus the more or less exclusive use of basal materials. The intermediate positions are rarely considered. A series of controlled experiments is greatly needed at this time in which various types of programs for promoting growth in reading, with pupils of different levels of intelligence and teachers of varying degrees of training and efficiency, are carefully evaluated.

Workbooks—As a result of a questionnaire study made by a committee of the Association for Childhood Education (11) it was found that workbooks were used widely among the schools participating in the study and that they would be used more widely, if available. In the judgment of the correspondents, workbooks are of distinct value in teaching pupils to read; furthermore, they are of greater value in diagnosing pupil difficulties rather

than in remedying them. Supporting evidence was also secured by Gates and Russell (48) who found that a group making use of both a primer and workbook materials in beginning reading showed a slight but persistent advantage over a group which used the primer only. On the basis of the evidence secured they concluded that workbooks are good when used to proper extent; if used excessively, they are of less value than interesting reading material.

Classification of pupils—Finally, much evidence has accumulated recently in support of the practice of classifying pupils at each grade level into relatively homogeneous groups for purposes of instruction in reading. Kiesling (75), for example, found it advantageous to classify first-grade pupils into three groups on the basis of their intelligence quotients; Kvaraceus and Wiles (79), to classify second-grade pupils on the basis of Metropolitan Achievement Test scores (reading, English, and spelling) and the judgments of teachers; and O'Bannon (99) and Martin and Rochefort (92), to classify pupils in the middle and upper grades in terms of scores on the Gates Silent Reading Tests. The results of all these studies showed clearly the value of some form of grouping to reduce variations in the attainments, capacities, and needs of pupils in reading classes.

Value of Training in Phonics and Syllabication

Among the problems which teachers of reading now face, none are more persistent than those relating to the value of phonics. Before reviewing the studies reported it is desirable to point out (a) that phonetic analysis is only one of several types of word analysis; (b) that quite different methods of analysis are used in the different studies reviewed; and (c) that phonetic approaches differ greatly in difficulty. The findings reported indicated that some type of word analysis is desirable and that some use of phonetic analysis is valuable. The most outspoken critic of the use of phonics was McDade (90) who inferred from a study of the merits of non-oral methods of teaching reading that the use of methods that do not emphasize phonics is advisable.

The results of specific studies of the value of instruction in phonics do not harmonize with McDade's conclusions. Wilson and Flemming (148) presented evidence of a particularly close relationship between skill in reading and certain other abilities with letter forms and sounds. Tate (127) found that an experimental group which had received formal instruction and drill in phonics scored higher in ability to recognize words than did a control group taught by the "look and say" method. In other phases of reading measured, the latter group was superior. One of the lessons taught by these findings is that the use of a given method produces superior results in the phases of reading which it emphasizes. In selecting methods for use at any stage of reading development, teachers should be guided by a clear knowledge of the various types of progress that pupils should make at a given time. As a rule, some training in phonics is of value in helping

primary grade pupils to recognize printed words which are phonetic in character and familiar in oral conversation.

The foregoing tentative conclusions are supported by the results of other studies. For example, Gates and Russell (48) concluded from comparisons of the reading achievement of groups receiving different amounts of training in phonics that moderate training in word analysis is better than no such training or a large amount of conventional phonetic drill. Through a comparison of third-grade groups varying in the kind and amount of training in phonics they had received, Agnew (1) concluded that consistent training in phonics (a) increases independence in recognizing words previously learned; (b) aids in "unlocking" new words by giving the pupil a method of sound analysis; (c) encourages correct pronunciation; and (d) improves the quality of oral reading. Agnew questioned the validity of the conclusions of certain earlier investigators inasmuch as he did not find that large consistent amounts of phonic training tend (a) to sacrifice interest in the content of reading; (b) to result in neglect of context clues; (c) to result in an unnecessarily laborious recognition of unfamiliar words; and (d) to be unnecessary because the advantages attributed to phonetic training might be obtained without formal training. Through studies made at the college level, Rogers (108) found that specific training in phonics is an effective technic for the improvement of pronunciation, oral reading, and reading vocabulary.

The results of the foregoing studies agree in respect to the advisability of some training in phonics. Turrentine (140) was doubtless impressed with such findings when she concluded that current difficulties and confusion lie not so much in the basic concept or need for phonics as in the way in which it is taught. Somewhat similar conclusions were reached by Spache (120). After reviewing the results of various studies he expressed the view that "final arguments against phonics, on the ground that it engenders undesirable habits of word-analysis and produces slow, uninterested readers, may be answered . . . by more careful choice of materials of instruction and stricter attention to relevant psychological facts and principles." Whereas no objective evidence was presented to support these views, it is significant that both investigators reached similar conclusions.

Assuming that phonics has a legitimate place in a reading program, several investigators have studied some of the more detailed problems relating to it. Dolch and Bloomster (25) carried on a series of studies to determine the mental age at which pupils are ready for phonic training. The correlations between mental age and achievement in phonics varied from .41 to .52. An analysis of records led to the conclusion that a mental age of seven is about as young as a child can be expected to use phonics effectively. The statement should be added that this conclusion is somewhat sweeping and may be open to criticism as were some of the early pronouncements on reading readiness.

In an effort to determine what phonics should be taught, Spache (120) analyzed critically the results of several studies of the nature and frequency of the phonetic elements in words and developed a series of criteria for selection. Gunderson (57) gave attention specifically to the phonograms listed in ten reading manuals for Grades I and II. Because of the limitations of space, it will not be possible to report here the findings of these investigators. The fact should be pointed out, however, that both reached the conclusion that the teaching of phonics could be simplified to advantage and that specific types of guidance should be introduced, as a rule, in response to pupil needs.

The value of phonics, as now taught, in attacking polysyllabic words was considered by Dolch (26). He pointed out that present systems of phonics are based on analyses of monosyllabic words, whereas pupils from the fourth grade on are concerned chiefly with polysyllabic words. In support of this view he pointed out the fact that 81 percent of the words in the Dolch-Buckingham list are polysyllabic. He then studied the words in various types of textbooks to determine the kinds of help most needed in attacking polysyllabic words. One assumption was that phonograms merit greater emphasis. His analyses led to the conclusion that syllabication should be taught "as the true attack on the sounding of the polysyllables."

Content and Grade Placement of Readers

Continued interest was exhibited during the last three years in the content of readers and in their grade placement. What pupils read in the first grade was considered by Pratt and Meighen (105) who analyzed the contents of the preprimer and primers of nine series of readers. Their data showed that the content of preprimers and primers now commonly used is composed largely of units which are of a factual, informative type; and that preprimers and primers contain little or no imaginative material. They recommended a better balance between these two types of material as a step in stimulating a love for reading. The trend reported above is affirmed by the findings of Hockett (66) who compared the contents of readers in current use in the primary grades with those used a few years ago.

Gunderson (56) studied trends in the content of second readers over a period of twenty-five years. Her data showed (a) that the increase in the amount of social science material has been from 2 to 35 percent; (b) that realistic stories and informational stories have increased from 3 to 14 percent; and (c) that the decrease in strictly literary material has been from 58 to 2 percent. A significant implication of these findings, according to Gunderson, is that if textbooks of the future are to contain no traditional literature, it is more important than ever that children's libraries be completely equipped with books of this sort.

The most elaborate study of the content of readers reported during the period was made by Hockett (68) who classified under subject headings the selections in 218 readers, ranging from preprimers to sixth readers. This

information is of great practical value to teachers who are seeking reading materials relating to specific topics.

As a result of a long period of experimentation, Washburne and Morphett (144) revised the 1938 edition of the *Winnetka* formula for grading children's books. The changes contribute both to greater validity and to ease of application. The authors maintained that in selecting books for children two types of information should be used: first, the judgment of experts concerning factors such as interest appeal, content, and literary quality; and second, the results of statistical studies of grade placement.

Reading Vocabularies

The vocabulary of reading material has interested an unusually large number of investigators during the last three years. Of major importance in this connection are certain reports which attempt to summarize the findings of previous investigators. For example, Seegers (114) reviewed critically the methods and results of 263 investigations relating to vocabularies at the elementary-school level. Data concerning writing and speaking, as well as reading vocabularies, were reported under the following headings: vocabulary lists, vocabulary difficulties in subject fields or textbooks, relationship between vocabulary and certain factors such as intelligence and the language spoken in the home, growth in vocabulary, and aspects of testing.

As a result of an analysis of twenty-three studies of the vocabulary of reading materials, Hebel (62) identified the following significant areas of research in this field: scientific appraisals of the vocabulary loads of many books in beginning reading; some information in regard to a common vocabulary; the number of different words which books contain; the average number of word repetitions; and the extent to which the vocabulary of one book is carried over into succeeding books. Important additions to these findings have been made as a result of specific studies of the vocabulary of different types of reading material. The information available is so detailed that little more can be done in this report than to describe the nature of some of the more fruitful studies.

Recent studies of the vocabularies of readers differ in two important respects from those made earlier: (a) more of them relate to the intermediate grade level; and (b) many of them are concerned with the practical uses which can be made of word frequency data. The most extensive series of studies reported were made by Hockett (68) who analyzed groups of readers from the preprimer to the fourth-grade level, inclusive. One of the striking facts revealed was a notable decrease in the vocabulary load during recent years. Concerning the relative vocabulary load at different grade levels, he found that the vocabulary of the median second reader is about twice that of the first reader and four times that of the primer. Furthermore, the number of different words in third readers is from one to six times that

in second readers while the vocabulary of fourth readers appears to be more than twice that of third readers.

The results of several studies at specific levels were also illuminating. Hayward and Ordway (60) found a very wide diversity in the vocabulary of fifteen preprimers, as a result of an analysis of 26 preprimers and 17 primers. Rudisill (111) indicated which preprimer might best precede each primer, also the sequence in which the preprimers and later the primers might be used. In another study of preprimers and primers, Stone (121) found that it is best as a rule to proceed from the basal preprimer into the basal primer, but if the latter becomes too difficult for straight-ahead joyful reading it is wise to shift to a cobasic or supplementary series. A subsequent study by Stone (122) proposed a list of 150 basic words for use in beginning reading activities. As a result of a study of ten preprimers, H. A. Curtis (22) identified a core vocabulary of 72 words and concluded that, through a wise selection of preprimer units and vocabulary, wide reading could be done at this level. Hockett (67) and Betts (9) also presented additional data concerning the vocabularies of recent preprimers, primers, and first readers which supported the conclusions presented above that the number of common words in the books at any level is surprisingly small and that the trend is toward a simplification in the vocabulary burden at the lower grade levels.

As a result of an elaborate study at the fourth-grade level, Berglund (8) found that by eliminating the words repeated less than four times there remained slightly more than 3,000 new and different words to constitute the fourth-grade reading vocabulary. By including the words which appeared at least seven times in the books at a particular grade level, Durrell and Sullivan (28) derived basic vocabularies of 691, 525, and 849, respectively, for the fourth, fifth, and sixth grades. The small number of words included indicates in a sense how widely the vocabularies of the intermediate grade readers differ. Additional information concerning the vocabulary problem in the middle and upper grades was secured by Thorndike (129) through a study of juvenile books. He identified six innocent or doubtful causes of the enlargement of the vocabulary of juvenile books which should be recognized in assigning such books to children.

Three additional studies at the elementary-school level should be referred to at this point. The first is an elaborate investigation (141) now in progress under the direction of H. D. Rinsland which aims to identify the most frequently used words of children in the elementary grades. When compiled the study will establish the reliability of the count for each grade and will list all words of high frequency together with the frequency of each. The second is an experimental study by Gates, Bond, and Russell (46) among 600 pupils in Grades II-VI inclusive to determine their ability to work out the recognition, pronunciation, and meaning of words in each of the twenty thousands of the Thorndike list. The study showed in general that the first thousand is slightly easier than the second, that the successive thousands

to the tenth increase in difficulty, and that the increase is slight beyond the tenth. Wheeler (147) also attempted to study the difficulty involved in learning words when presented by different methods. His data showed that whereas the methods used may affect the rate of learning they did not materially change the relative difficulty of the words.

In high school—Very few vocabulary studies have been reported at the high-school level thus far. However, a significant contribution was made by F. D. Curtis (21) who engaged in an elaborate analysis of the vocabulary of science texts. He found that more than twice as many of the uncomprehended technical and nontechnical words encountered belong in the seventh thousand of the Thorndike list as belong in the sixth or any preceding level. His study led to the conclusion that the vocabularies of science books are too difficult and that too large a percent of the difficult words are not defined in the texts. He recommended a reduction in the number of difficult words included in science textbooks and the definition of all technical words used above the sixth thousand in the Thorndike list.

Adult reading—At the adult level, the Works Progress Administration (154) has developed a graded word list in four levels for use in the preparation of reading material for adult elementary education. Dolch and Dolch (27) verified the impression that the Bible contains relatively simple reading material and that "all *can* read the Bible—if they will." As a result of a preliminary study of the vocabulary of the *Encyclopedia Britannica*, Thorndike and Lorge (130) concluded that it uses the vocabulary needed to present its facts adequately and in a dignified style, free from unnecessary technicalities.

Studies of Concepts and Meaning Vocabularies

Closely related to the number of words used in reading materials are facts concerning the concepts and meanings represented. Increasing interest in the study of such facts has been exhibited during the last few years. As a result of a concept analysis of preprimers and primers, Sims (116) emphasized the fact that many of the words included are used to represent more than one concept or meaning. Following an analysis of third-grade readers, Meighen and Barth (93) concluded that such books could not be especially meaningful to pupils unless they knew something of the location and the environmental features of the regions introduced. Supporting evidence for this view was secured by Herbers (63) who studied the difficulties of thirty pupils in comprehending third-grade material.

Concerning the methods employed in deriving the meanings of words in reading, Looby (87) found that the context was used widely. Evidence was also secured that the meaning vocabularies of pupils can be greatly increased through training. In order to secure a clearer understanding of the problems involved, Gray and Holmes (55) reviewed the literature and conducted a controlled experiment to determine the relative merits of incidental and specific training in increasing meaning vocabularies. The

results showed clearly the superiority of directed vocabulary study. Furthermore, Tate (128) found that large gains in meaning vocabulary can be made in the upper grades in a half year and that a study of root words is very helpful in this connection. Traxler (136) demonstrated the fact that the results of intensive training in the upper grades are relatively permanent. Curoe (20) found that directing attention of college seniors to the meanings of short lists of selected words for a period of three minutes daily throughout a semester is very helpful. Such findings justify the recommendation that increased attention should be given at all educational levels to the enrichment of the meaning vocabularies of learners.

The factors which influence vocabulary growth were also considered by certain investigators. For example, Pond (104) found that intelligence is closely associated with vocabulary knowledge among pupils who have studied Latin. In a comparative study of Spanish-American and Anglo-American pupils in high school, Johnson (74) found that the former were retarded from seven to twelve months in meaning vocabulary. In order to determine the effect of age on meaning vocabulary, Shakow and Goldman (115) studied the Stanford-Binet vocabulary scores of adults. Their data indicated that meaning vocabulary remains about constant for the different decades from eighteen years of age to the seventies. Dale and Weedon (23) found that social and economic changes between 1928 and 1937 definitely influenced the familiarity of eighth-grade pupils with fifty business terms. These findings reinforce the conviction that many factors other than specific training influence the meaning vocabularies of groups and of individuals.

Reading in the Content Fields

The significance of reading problems in various curriculum fields is recognized more and more widely each year. Evidence of positive correlation between reading ability and scholastic progress was presented by McCallister (89) who found that the better readers at the junior college level tend to make the higher scores on comprehensive examinations. Read (106) also studied the correlation between reading comprehension and first semester averages in a municipal university and found it to be .41 for the cases studied. In harmony with the findings of earlier investigators, rate of reading was of far less significance than level of comprehension.

Even more significant than the general relationship existing between reading ability and scholastic achievement is the finding of Bond (13) that varying degrees of relationship exist between the several aspects of ability in reading and composite ninth-grade achievement. Ability in composite comprehension, in location of information, and in power of comprehension are all highly significant factors in composite ninth-grade achievement. Her data also showed that slow readers are at an advantage in composite achievement but that rapid reading is a definite help in enlarging vocabulary and broadening literary acquaintance. Furthermore,

"A relatively slow rate of reading . . . is characteristic of high achievement in science, mathematics, and Latin." These findings support the contention that all teachers should make special effort to identify the types of reading ability essential to success in their respective fields and should attempt vigorously to promote their development.

In an effort to determine the different ways in which reading might be used in studying, McCallister (89) analyzed the syllabi for courses required of freshmen in Chicago junior colleges. The activities identified were organized under the following headings: reading for recreation and pleasure; ascertaining the purpose of reading before beginning to study; rapid reading or skimming; assimilating and retaining information; amplifying one's understanding of a topic or problem; interpreting and executing directions; proofreading written reports; apprehending relationships; comparing and contrasting; organizing information; evaluating reading materials; drawing inferences. The importance of such analyses is emphasized by Cuff (19) who found that the following procedures characterize the high scholarship groups in Grades IV-XII inclusive: secure a clear notion of the task before beginning to read; seek to master all the material as progress is made from lesson to lesson; grasp the meaning of a chart or table without difficulty; do not take notes while reading; work out individual examples to illustrate general rules or principles. The fact should be kept in mind that such lists as the foregoing should not be adopted as guides without careful consideration of the purposes of reading and the conditions under which it is done.

Convincing evidence of the value of guidance in reading in the content fields has been presented by H. K. Bennett (7) who reported significant gains in work type reading in Grades IV-VIII inclusive throughout a state; by Phipps (102) who secured improvement in ability to read history at the sixth-grade level by giving attention to the development of a meaningful vocabulary in that field; by Stright (125) who showed that improvement in reading ability does affect the pupil's ability to solve algebra problems and that word meanings should be stressed in teaching algebra; and by Clark (18) who found that remedial instruction in reading secured better reading achievement, which in turn effected a higher coefficient of correlation with algebraic achievement.

In the field of English, Hovious (71) presented evidence of the value of teaching reading or writing (or speaking) in the high school as complementary arts. "The problems of the reader (consumer) and the problems of the writer (producer) went hand in hand. The reading project was in each case the point of departure, leading to further reading to produce a radio program, a panel discussion, a diary, a book, a newspaper, or an assembly program." Heaton (61) secured evidence of the value of informal reading in connection with a core curriculum at the college level in increasing literary acquaintance, and Turney and Fee (139) of the value of teaching English as an insightful process. The data secured

indicated clearly "the value of selecting subjectmatter, teaching, and testing with the idea in mind that development in English . . . can be an insightful, or relation-seeing process." Such findings are very suggestive. They indicate among other things that reading may with proper guidance become a far more effective tool in studying than it has commonly been in the past.

The increasing effort to improve the readability of materials in the content fields is illustrated by the report of Struble (126) who described the various principles which should be observed in adjusting for use in the second year of the high school the vocabulary burden in French reading material. Treacy (138) reviewed briefly recent efforts to improve the construction and selection of textbooks and emphasized their importance in molding pupil attitudes.

Reading graphs—Strickland (124) carried on a series of studies to determine the types of graphs intelligible to children in Grades I-IV. He found that above the first grade children encountered a surprisingly small number of difficulties in interpreting them, and that the expressed preferences of the pupils placed the developmental picture chart first at each grade level, followed by the unit pictograph, circle graph, line graph (for Grades III and IV only), bars and figures, and least of all bars on a grid. As a result of such studies the readability of textbooks will not only be greatly improved in the future but in addition many new and desirable features will be included.

Reading Achievement and Related Factors

Of large practical importance are the results of studies of reading achievement and related factors. Many of the reports to which reference has already been made indicate wide differences in achievement among pupils at each grade level. A significant issue relates to the factors which are associated with these differences and which influence achievement.

Comprehension—Miller (94) found that the presence or absence of pictures in primary readers influenced materially the pupils' comprehension of the material read. Rogers (107) found that good readers at the college level read with much greater accuracy both orally and silently than do poor readers. Fendrick (39) discovered that, although there are marked individual differences, freedom from distraction while reading is in general important. Nolte (97) pointed out that various factors influence comprehension, such as meaning vocabulary, the inherent difficulty of the concepts, and the relation of the pupils' experiences to the ideas presented. That style of presentation may also influence comprehension was emphasized by Pickford (103) who concluded that, for a given subject, the style of a piece may fail to express ideas which are nevertheless clear in themselves, or ideas which are inherently obscure may be expressed in clear style. Furthermore, changes in difficulty of the material influences comprehension, as shown by Walker (142) and Tinker (135); similarly modifying the rate of reading affects the level of comprehension, as in-

licated clearly by the findings of Flanagan (41). Obviously, a reader's comprehension on a specific occasion or over a long period of time may be influenced by a given factor or by various combinations of factors.

Speed of reading—Sisson (117) identified several factors that are significant determiners of individual differences in reading rate: intelligence or the ability to understand the written word; perceptual span or word perception; and the attitudinal or conative determiners of the kind and amount of product or byproduct of the reading. Of these he was particularly interested in the third. He described the slow reader as a careful detailed reader, and maintained that the good reader is characterized by a plasticity and facility of change in mode of attack to meet the requirements of the particular situation. That the type of material read and the kind of response desired may also influence speed of reading is indicated by the findings of Tinker (135). All these conclusions have wide practical significance in planning programs both for promoting greater speed in reading and in enabling readers to adjust themselves more effectively to the demands made upon them in specific situations.

Reading Interests

The studies reported in this field are so numerous that reference can be made to only a few of them. Of the hundred or more studies relating to reading interests that were available, Kramer (77) selected for summary those which seemed to contribute to a better understanding of how best to direct the reading interests of children toward the formation of more permanent and discriminating tastes and to help them to acquire a knowledge of the usefulness of books. One striking fact revealed is that although liveliness, humor, and conversation are important interest determiners among young children no one quality or combination of qualities is responsible for interest in reading on the part of all children. The second fact is that interest in the reading of books increases rapidly during the grades but often decreases notably at the high-school level. This fact calls for searching study on the part of secondary schools of the influence which they exert or might exert in this connection. A third fact is that intelligence and environmental factors influence both the kind and amount of reading which is done. To a less marked degree, sex also influences reading interests.

The foregoing findings will be supplemented by the conclusions of several specific studies of reading preferences. As a result of a study of reports from 924 pupils in elementary schools, Seegers (113) found that children of various intelligence levels read much juvenile fiction and a considerable amount of standard fiction and children's classics. Further analysis of the records led to the conclusion that elementary children "read avidly, but that their tastes could be directed, and the substantial could be made as appealing as the cheap and trashy, and particularly does it (the study) indicate the tremendous importance of availability and the movies in determining choice." Studies at the upper grade

level by both Lazar (81) and Zeligs (156) showed that the materials read by the brighter children are in general superior to those read by dull children, and that there are significant differences in the reading interests of upper grade boys and girls.

One of the most illuminating studies at the high-school level was reported by Rothney and McCaul (110) who made a study of the preferences of 306 eleventh-grade, college-preparatory boys. The data secured indicated that they had a liking for materials dealing with the contemporary scene and for literature that related closely to their lives. They expressed dislike for histories of literature, thus indicating that the factual, analytical history-of-literature approach is not conducive to generating an interest in literary works. A study by Levi (84) was concerned with the extent to which high-school pupils become news-conscious in succeeding years. The data secured indicated that the tenth grade ranked lowest in newspaper reading and in interest in current events. One explanation offered is the fact that many of the pupils studied changed to a new school at the beginning of the tenth grade, thus introducing a distraction. The study also revealed the need for vigorous emphasis throughout the secondary-school period on the reading of current events.

Evaluation of interests—The evaluation of the leisure reading of pupils presents challenging problems at all grade levels. In this connection the staff of the Eight Year Study of the Progressive Education Association has formulated four assumptions concerning pupils' reading experiences. As presented by Eberhart (31) these experiences should be of such a nature that the pupil is stimulated to read extensively, to read various types of fiction and nonfiction, to read books of gradually increasing maturity and complexity, and to develop special interests in various fields of knowledge and various types of literature. The application of these standards is illustrated in Eberhart's report. Through the use of the technics described, the teacher may come to a clearer realization of the successful aspects of his work and of the points at which change in emphasis or direction is advisable.

Cultivating interests—Various methods of promoting reading interests and tastes were reported. Lawshe (80) emphasized the importance of a shift from intensive to extensive reading, from teacher-chosen classics to pupil-chosen materials, and from reading for knowledge to reading for experience and pleasure. Rosenbaum (109) found that highly motivated conference periods in library reading were valuable, and Hancock (59) found that two periods each week in an auditorium devoted to stimulating lectures on various types of literature, supplemented by actual reading during three class periods each week of the types of literature discussed in the auditorium, brought valuable returns. As a result of studies carried on by Erickson (34), evidence was secured of the importance not only of providing an abundance of interesting attractive literature but also

of providing guidance to develop interest in an appreciation of the best literature suitable to children. These conclusions are generously supported by the findings of several investigators whose studies have been reported during recent years.

Diagnosis and Remedial Teaching

The studies often classified under this heading may be divided into two general classes: those that relate to the diagnosis and remediation of groups of pupils under classroom conditions; and those that relate to more severe forms of reading disability which usually require individual treatment. This section is concerned with the former.

More than thirty reports of efforts to improve the reading habits of poor readers have been published during the last three years. Of significance are those of H. K. Bennett (6) who organized a statewide remedial program in Iowa at the elementary-school level; of Monroe and others (95) who conducted a remedial program in the elementary and high schools of Washington, D. C.; of Center and Persons (17) who reported an elaborate program of diagnosis and remediation in Roosevelt High School, New York, N. Y.; and of Bear (4) who carried on similar work at Dartmouth College. The studies that have been published show conclusively that there is a surprisingly large number of poor readers at each level from the primary grades to the university. They supplied evidence also that notable improvements can be secured through deliberate studies of the nature of the difficulties encountered and the organization of group and individual instruction adapted to the varying needs of pupils or students.

In an experiment including one thousand adults, Buswell (16) found that improvement in the efficiency of poor readers can be readily secured. He contended that more gain may be expected from a simple remedial program dealing with basic factors than with a very elaborate program which deals with an indiscriminate list including trivial as well as important factors.

Although distinct improvement was secured in practically all the experiments reported during the last three years, Witty (150) vigorously challenged the adequacy of current practices in remedial reading. He maintained that most remedial programs are far too narrowly conceived and should be reoriented in terms of larger considerations and aims. In his judgment, the remedial teacher must look beyond the specific habits and skills in which there is obvious deficiency and must aim to help the child adjust himself better to his school and social environment as a fundamental step in the remedial program. Abundant support for this view is found in the fact that in many cases reading retardation is but one of many manifestations of poor adjustment to the program of the school and to the demands made on the individual outside school.

Causes of Severe Forms of Reading Disability

The causes of severe forms of reading disability continue to attract wide attention. One of the striking facts revealed by the numerous studies reported is that many factors and conditions are associated with reading disability. For example, Lichtenstein (85) summarized various case studies which showed that different factors, or combinations of factors, operated in each case: in one of them the most obvious causal factors were poor visual perception and poor phonetic ability; in a second case the difficulties appeared to be wholly physiological, including poor motor coordination and a markedly defective neurological mechanism; in a third case the difficulty was explained in terms of the need for more effective methods of promoting associative learning.

One of the most illuminating studies published during the last three years was that of C. C. Bennett (5) who summarized at length evidence concerning the factors associated with reading disability. He found (a) that although low intelligence is without doubt one of the most important causal factors, cases of reading disability often occur among pupils with average intelligence or above; (b) that the evidence available does not justify the conclusion that there is a general sex difference in reading ability in spite of the fact that more boys are reported for remedial treatment than girls; (c) that occasional reading disabilities result directly from physiological or neurological defects and that more frequently such conditions exert a contributing or aggravating influence; (d) that various types of visual dysfunction may sometimes contribute to difficulties in reading; (e) that adequate auditory functioning is very important and that a careful adaptation of instruction is necessary to meet the needs of children deficient in this respect; (f) that hand and eye preferences are unreliable indexes to reading achievement, that handedness alone appears to have little or no significance, and that crossed dominance appears with disproportionate frequency among poor readers. Other factors, such as home background, personality, and behavior characteristics, were found to be associated with difficulty in reading.

Bennett also made comparisons of average and poor readers which lead to the following inferences or tentative conclusions: (a) that the position of eldest child in the family is propitious to good reading; (b) that children with a history of speech defects seem liable to failures in reading; (c) that poor readers are regarded as lacking in persistence and in capacity for sustained and concentrated attention; (d) that the tendency to pursue a somewhat inactive and solitary life rather than a physically vigorous and gregarious one is more characteristic of poor readers than of good readers; (e) that poor readers tend to regard the school situation as rather unpleasant and difficult to face; and (f) that poor readers tend to regard themselves as somewhat inadequately fortified in facing life's difficult situations and are more or less subject to crying spells, fears, indecision, headaches, or loneliness. Such statements support the conclusion

of Witty referred to earlier that the problems faced by the poor reader are quite diverse and complex and often require steps leading to better adjustment both in and out of school.

Whereas it was believed for many years that extremely poor readers suffered from some sort of innate deficiency or incapacity the view now prevails that most of the causes of reading disability must be sought elsewhere. For example, Gerstmyer (50) found as a result of elaborate diagnostic studies in the primary grades that "the so-called extreme nonreaders are usually suffering either from a physical defect or from poor teaching techniques, and not, as previously believed, from innate deficiencies." Support for this view is found in the fact that a surprisingly large proportion of very poor readers make satisfactory progress in reading when unsatisfactory conditions have been corrected and methods appropriate to their respective needs have been applied.

Visual Defects and Reading Disability

The relation of visual defects to reading disability has been studied more widely during the last few years than is true of any of the other causal factors mentioned above. Farris (37), for example, examined more than sixteen hundred seventh-grade pupils to determine the influence, if any, of visual defects on achievement in reading. He found that 44 per cent of the pupils had visual defects of varying degrees, and that both hyperopia and strabismus were associated with less than normal progress in reading, while myopia and myopic astigmatism were both associated with more than normal progress in reading. Of distinct significance is the fact that pupils whose visual perception is monocular make better progress in reading than did those with poor coordination of the two eyes. The results of the study did not bear out the assumption that children with defects in visual acuity regardless of type are always handicapped in learning to read. When all types of eye defects were considered collectively those with defects made slightly greater gains in reading than those with normal eyes. After reviewing all the evidence secured, Farris concluded that classroom methods and procedures in teaching reading should be modified to meet the special needs of those pupils who have eye defects.

The facts presented previously should be supplemented by the results of several more highly specialized investigations. For example, Dearborn and Anderson (24) concluded from a study of one hundred cases of severe reading disability and one hundred control cases that aniseikonia may contribute to the cause and persistence of reading disability. In a study of 350 poor readers, with a median grade index of 3.6, Eames (29) found that one-third had refractive errors of one or more diopters; that about one-half exhibited incoordination difficulties at the near point; that one-third were deficient for fusion of twelve-point type; and that from one-fourth to one-third had restricted central visual fields. On the basis of the evidence secured he concluded that many poor readers need medical or

optical attention. In another study (30) involving one hundred poor readers and fifty who encountered no reading difficulty, he found that the former tended to exhibit slower speeds of both picture and word recognition and therefore of the speed of recognition in general. Because the children without reading trouble but with eye difficulties tended to be slower in speed of recognition than did a group of twenty school children who were without eye or reading trouble he concluded that eye defects may retard the speed of recognition.

Somewhat different conclusions from those given above have been presented by several investigators. Imus, Rothney, and Bear (72) grouped college students on the basis of ocular defects but found no significant differences among them in performance on reading tests, eye-movement camera records, or academic points or in improvement during a college year. Even the correction of visual defects did not seem to affect improvement. The fact is significant, however, that 83 percent of those receiving ocular correction believed that they had been helped. Without doubt this belief was due in many of these cases to relief from discomfort.

After a critical review of investigations in this field Witty and Kopel (152) concluded that good vision is essential for optimum physical efficiency and achievement of good and poor readers. Moreover, visual defects may in individual cases seriously impede the reading process or contribute to its dysfunction.

Tests and Measurement

The chief problems relating to tests with which investigators have been concerned during the past three years pertain to their validity and reliability and to the development of improved measures of reading ability. A comprehensive study of the reliability of tests was made by Strang (123) who summarized evidence from various sources concerning the reliability of fourteen favorably known reading tests at the college level. She found that their reliabilities ranged from .96 to .50. The Nelson-Denny Reading Test, the vocabulary part of the Minnesota Reading Examination for College Students, and the Iowa Silent Reading Test had reliabilities of .91 or above. Strang pointed out exceptions to the fact that the correlations between tests of speed and comprehension are low. For example, the Chapman-Cook correlated with paragraph comprehension and paragraph organization sections of the Iowa Silent Reading Test with coefficients from 0.565 to 0.640 in two studies. In addition, while correlations between reading tests and intelligence tests are generally high there is considerable scattering. Also, speed tests correlate much lower than do tests involving comprehension.

Several reports described the purpose and organization of new tests on reading. For example, Flanagan (42) described a reading test for use in secondary schools and colleges which provides separate scores for speed

of comprehension and level of comprehension. Engelhart and Thurstone (33) described the nature, organization, validity, and reliability of the Chicago Reading Tests prepared for use in various elementary-school grades. A basic assumption underlying the development of these tests was that their content should harmonize with that found in the school curriculum. Feder (38) described the nature of the Comprehension Maturity Tests, which are based on the belief that there are gradations of comprehension of even very simple ideas. The data presented indicate that reading for information and reading for inference are relatively independent; on the other hand, reading for appreciation bears a close relationship to reading for inference although there are differentiating factors involved.

A few investigations reported data which throw light on factors influencing the reliability and validity of reading tests. Traxler (137) pointed out, for example, that a speed of reading test which continues for four hundred seconds is much more reliable than one for only three hundred seconds or less. Flanagan (41) emphasized the fact that the terms "speed" and "comprehension" must be defined explicitly in any effort in the future to develop valid measures of these aspects of reading. Tinker (135) presented evidence supporting the contention that speed and comprehension are affected by the level of difficulty of the materials read. Seashore, Stockford, and Swartz (112) secured data indicating that there is a group of factors which is common to all speed of reading tests that are not accounted for by measures of comprehension or intelligence. They recommended that a battery of tests at the college level should include measures of speed of visual recognition. The results of such studies justify the assumption that far more discriminating criteria should be applied in developing reading tests in the future than has been true as a rule in the past.

As the relation of vision to reading has been more clearly recognized, increased attention has been given to the development and validation of vision tests that can be used in identifying pupils with visual defects. In this connection Hildreth and Axelson (64) have developed an adaptation of the Snellen Chart that capitalizes the child's interest in games and elicits responses that are pleasurable and natural. Betts (10) reported previously unpublished data on the reliability and validity of the readings taken on the lateral imbalance slide of the Visual Sensation and Perception Tests of the Betts' Ready to Read Battery. Both the limitations and implications of these data are presented. Oak (98) attempted to appraise the Betts' Visual Sensation and Perception Tests by comparing the results secured by school nurses on the Betts' tests with those secured by the school staff ophthalmologist. A comparison of the results of the two types of examinations led to the conclusion that the Betts' tests sort out too many cases for practical purposes, and also that they miss cases needing to be referred for ocular attention. This conclusion is based on the assumption that the findings of the ophthalmologist were accurate. No supporting evidence was presented, however.

Hygiene of Reading

Various agencies have been deeply interested during recent years in the amount of light necessary for effective and comfortable vision. After considering all the evidence available, Tinker (134) concluded that the critical level for reading is between 3 and 4 foot-candles. To provide a margin of safety, no reading should be done with less than 5 foot-candles of light; in schoolrooms, in general, the minimum should probably not be less than about 10 foot-candles; in sight-saving classes the brightness should probably be 20 to 25 foot-candles.

Alderman (2) carried on studies in Grades I-VI inclusive to determine the effect of size of type on speed of reading. He found that in the lower grades 8-point type was read more rapidly than 10-point, 12-point, and 14-point type. The smaller type was distinctly superior in the upper grades. He also found little or no difference in the relationship between speed and size of type for pupils of different levels of intelligence. Through the use of the Betts' telebinocular tests he found that all pupils who have eyes that are good enough to engage effectively in schoolwork in general read the smaller type more rapidly than the large type. Unfortunately, the speed tests were of short duration and did not take into consideration the factor of fatigue. Furthermore, the influence of size of type on accuracy of word recognition and discrimination in the early stages of learning to read was not studied.

As a result of a comprehensive study of the effects of leading on readability, Luckiesh and Moss (88) concluded that 3-point leading represents a practical optimum in readability, while solid set and 1-point leading are least desirable. In reaching decisions, more significance was attached to blinking than to any other of the criteria used.

CHAPTER II

English Language, Composition, and Literature¹

J. PAUL LEONARD, with the assistance of REBECCA ARNELL

THE REVIEWS presented in this chapter include the reports of the studies in English language, composition, and literature published throughout the triennium 1936-39 and the pertinent doctor's and master's theses for which data were available to the writers.

Summaries of Research

A number of summaries of research published during the period have facilitated the preparation of this bibliography. Greene (218), with Lyman, O'Rourke, and Smith, summarized sixty-seven studies in English language on the elementary level from July 1934 to July 1937. D. V. Smith (285) covered the studies on the secondary and collegiate levels for the period from January 1934 to July 1937. Other summaries were produced by Lyman (252, 253, 254, 255), for the elementary and secondary schools, and by Pooley (274) who made his application to curriculum building. D. V. Smith (286, 288, 289) evaluated the contributions of research to teaching and curriculum-making in English and presented two lists of selected references. For compilations of titles and précis of unpublished theses, the work of Goodykoontz (213) and Gray (215, 216) of the United States Office of Education are most valuable.

Summaries of the Application of Research to the Classroom

In addition to the above summaries, special interest is evidenced during the interval by the emphasis placed upon the application of the findings of research to the classroom. Such presentations of research are valuable as bases for modifying both future research procedures and teaching practice. The diffusion of such critical summaries in the various educational publications is encouraging, for easy availability determines their utility to busy classroom teachers. Inaugurating the stress on this area during the period, Greene (220) presented an inclusive review of research contributions to a modern program in English, as a part of the yearbook on English sponsored by the Department of Supervisors and Directors of Instruction. Greene (219), as chairman for the National Conference on Research in Elementary School English, also summarized concisely sixty statements of method in elementary English composition which are supported by research or consensus.

Contributions were made by Broening (174, 175, 176), in the three reports of the American Educational Research Association, emphasizing applied research in the teaching of composition, the factors affecting success in written composition, and the considerations influencing improve-

¹ Bibliography for this chapter begins on page 160.

ment in learning. Also in the publications of the same association were the indications of trends in composition achievement in a reorganized plan of teaching in senior high school as viewed by Gordon (214), while Leonard (249) indicated the effect of recent research on the selection and placement of items in grammar in the secondary curriculum. Bagley (165), in a critical evaluation of the objective estimates in the various areas of English instruction, demonstrated, in apt perspective, the experimental psychology in each and made certain recommendations substantiated by present psychological findings. She characterized the general principles of learning as equally true in England and in America and lamented the empirical fashion of the establishment of method in language and literature.

In the Thirty-Seventh Yearbook of the National Society for the Study of Education, Greene (217) pointed out the contributions of research to the methods of teaching English usage. Brueckner (178), in the next yearbook of the same society, presented an analysis of the research in oral and written language and stressed the present paucity of studies on the language needs of children and the learning difficulty of language concepts. The Michigan Department of Public Instruction (265), comprehending a felt need on the part of teachers, devoted a chapter to elementary-school English in its bulletin on implications of research for classroom instruction. Concerned exclusively with implementing the classroom with the results of research, the joint yearbook of the American Educational Research Association and the Department of Classroom Teachers in 1939 presented the observations of Leonard (250) in an analysis of the trends in the language arts. He found that specific courses in elementary English are disappearing and that the emphasis is shifting from written to oral composition and from formal teaching to functional and creative guidance. Uhl (299), in the same volume, after perusal of the research in the teaching of literature, presented his psychologically substantiated conclusions as to content, organization, method, and devices. Carefully interpolated by references to substantiating studies in footnotes and bibliography, Reed's chapters (278) in his recent volume on the teaching of secondary-school subjects particularized for the classroom the objectives, organization, practices, individual differences, motivation, and materials of English literature and composition.

Rivlin (279) appraised the history of research in the teaching of grammar; he alluded to such pitfalls of grammar studies as the inherent weaknesses of the statistical approach lacking insight, the tendency to equate groups without consideration of all factors, insufficient time expanse to establish ultimate values, difficulties of differentiating the problems of habitual speech patterns, and the arduous task of extensive classroom research. Evans (203) asserted the hopeful trends of studies in language, composition, and grammar; remaining requisites are research on the exact influence of cruciality, the hierarchies of language difficulty, successful classroom practice in integration, and genetic studies of language

development. Several summaries which impinge on particular categories will be identified later in the present chapter.

Teacher Training in English

The modern program in English demands individualized instruction; teacher training therefore looms particularly significant. W. I. Painter (271), employing a checklist of the number of hours of college English and the selections read from a composite list of 306 books for adolescents, used the students of English preparing to teach in twelve large universities of the North Central, Southern, and Middle Atlantic Associations to discover the degree to which prospective teachers are receiving training in English literature in college, the extent of their reading of literature recommended for adolescents, and the effect of additional study in college on the scope of such reading. His study revealed the limited acquaintance of beginning high-school teachers with literature for adolescents and the preponderance of classical material in their reading; he suggested the need for a reading course in adolescent literature in the English curriculum of every teacher-training institution.

Allen (160), by means of questionnaires answered by 373 degree-granting universities and colleges representing forty-eight states and the District of Columbia with responses of 5,300 senior English majors preparing to teach, sought to determine the effect which the *First Report of the National Council's Committee on English Language Courses in Colleges and Universities* had on the linguistic preparation of prospective teachers as to the provision for minimum essentials recommended by the committee. According to his data the majority of colleges and universities do not meet these minimum recommendations; the small colleges make a less satisfactory showing than the larger colleges and the larger colleges than the universities. His optimistic note was that the colleges offering this work are becoming more numerous with 119 having separate courses, progress being blocked by the influence of tradition, the disproportionate emphasis on other phases, and the stressing of professional courses. Garnett's study (210) of the students of three middlewestern teachers colleges by testing and composition analysis, over a period of several semesters, although showing some gains, indicated that only a small number were adequately prepared for teaching the basic skills.

The above research discerns some of the problems; obviously, the need is for extended access to workable procedures and to criteria for evaluation of experimentation, which the teacher-education project of the American Council on Education now in process will serve to illuminate.

Surveys of Teaching Practices

Prognostication of future practice by surveys of current practice will destroy itself for lack of standards. Too many contributions of such studies fail to realize that their work is merely the initial step; the comprehension

of status and needs requires, not far-flung generalizations, but further research for solutions obtained by a variety of the best technics now available. There is, too, the fallacy of constructing the whole from some of its parts; for often only those who have something to display are willing to exhibit, and few skeletons are dragged from the educational closet by the survey and questionnaire method. Granting these inherent shortcomings we can, nevertheless, see in the ever enlarging numbers of such studies their utility in decreasing the expanse of the omnipresent gap between progressive theory and lagging practice, through giving examples of good teaching procedures, and through indicating the needs for more widespread distribution of the contributions of recent research to classroom teaching.

Very early in the triennium included in this chapter came Wrightstone's *Appraisal of Experimental High School Practices* (310) in which he concluded, substantiated by various test results, that the experimental methods as compared with the conventional had not detracted from student ability in the recall of facts and information, but yielded greater facility in obtaining, organizing, interpreting, and applying data. Most extensive of the surveys during the period was the New York Regents' Inquiry (224, 295) the English phases of which D. V. Smith (287), from her observations during the survey, analyzed as predicative of certain definite needs in language arts: meeting the problems of the student for whom high school is terminal education, the interrelation of the various aspects of English with life situations, practical programs of speech, more adequate teacher training, and the improvement of the surroundings of the small school.

Composition—Perhaps a bit to the consternation of those who have hoped for rapid progress, Crowley (190) observed, in her study of the New York State elementary courses of study from 1889 to 1938, the constancy of objectives and content of English grammar throughout the period with some change toward a more accurate classification of items of subjectmatter and toward a grade placement which centers its study much too heavily in the sixth, seventh, and eighth years.

Surveys of Literature Teaching

Several historical surveys present the liberalizing trends in the teaching of literature at the various levels. Lyons (256), tracing and evaluating the development of literature in the Boston kindergartens through a canvass of the criticisms of children's literature, children's books, the Boston public school records, and by the use of letters and interviews with pioneer kindergarteners and book publishers, found a continuous and concomitant growth of literature for the little child and of the kindergarten. Sears (282), after a survey of the teaching of literature in the junior high school based on thirteen state and ten city courses of study published since 1927, observed trends toward a consideration of individual differences, informality of procedure, extensive reading, and less classical emphasis. Fry (207) analyzed questionnaire responses from forty-six progressive

junior high schools throughout the nation, noting such differentiating characteristics of their language arts courses as combinations with other subjects, smaller classes, discontinuance of the five-point grading system, functionalization of the teaching of skills, individualization of instruction, personality development, and the inclusion of extra-classroom activities in curriculum planning.

History of English curriculum—Beckham (168) scrutinized the primary sources of the history of the teaching of high-school English from 1870 to 1900, discerning data which presaged the establishment during this period of English as a subject in the secondary curriculum. She demonstrated the conversion of composition from formal discipline to expression, of literature from parsing exercises to appreciation, and delineated the major factors in relative influence of the elementary school, the academy, and the college. Augmenting this study, P. L. Miller (267) reported the development of the methods of teaching English literature in secondary schools from 1912 to 1937, using as sources the successful practices as indicated in texts, histories of education, committee reports, Bureau of Education bulletins, and issues of periodicals, noting increased liberalization of method and content. Similar findings were made by McKay (257) in the investigations of the aims, methods, and devices in the teaching of literature in the high school based upon the *English Journal* from 1930-1938, identifying the tendencies toward functional organization, activity basis, free reading, remedial reading, and the use of contemporary material.

Shakespeare—An investigation of more than passing import is that of Van Cleve (301) on the employment of the plays of Shakespeare as teaching material in American secondary schools, a survey of the methods of the entire period of their inclusion through texts and educational literature, and a description of their current use by a questionnaire sent to a representative sampling of superior teachers of English throughout the United States. He found that the early editions for school use followed a philological-analytical method, but, since the turn of the century, there has been an expanding trend toward oral interpretation and dramatization. He also noted a strong tendency to eliminate Shakespeare from the junior high school and to concentrate the plays in the upper two years of high school and for the brighter students. Nevertheless, twenty-five different plays are used today; they are variously included in practically all of the anthologies, and professional performances for high-school students are increasing.

State and Local Surveys of English Teaching

Of interest to the areas concerned are the surveys of practice devoted to particular states, localities, and schools; the fervent missionary of progress visions further labors. Douglass and Filk (202) reported the results of their questionnaire distributed among 163 teachers of English in Minnesota high schools, noting that "theories of student interest and

freedom found expression in the more recently trained and less experienced teachers, while better provisions for individual differences, visual aids, and standard tests were more frequent in classrooms of the large-school experienced teachers."

A survey of the prevailing practices of teaching ninth-grade English in the high schools of South Dakota, by B. J. Smith (284), revealed wide divergence in content and method, as did that of Grone (223) who interpreted the course offerings in literature in five-to-ten-teacher high schools in Nebraska. The potent influence of the teacher and the emphasis upon pupil interest and activity were identified by Wheeler (301) through her data on the modern trends in literature of senior high schools in Texas. R. S. Adams (158) found that in the state of Rhode Island the majority of titles used in the high-school literature classes at the time of her study were the so-called classics. By visitation and questionnaire, Grider (221) collected data on the instructional materials used by English teachers in Grades VII-XII in village and rural consolidated high schools of north-eastern Oklahoma, finding that the value of such was often determined by the personality of the teacher and the stress of the teaching load.

Social and Psychological Significance of English

The monograph of the National Council of the Teachers of English, *An Experience Curriculum in English* (227), accepted the obligation of English instruction to delete traditional materials in favor of those which impinge upon the experiential levels of boys and girls and become significant in their personality development. Thus, recent research in curriculum building in English literature and composition has emphasized the social responsibilities of content in these areas. Accordingly, Kaulfers and Roberts (240) imparted the sustaining tenor of the Stanford Language Arts Investigation; they conveyed a basic social and cultural emphasis in philosophy and implementation of a unified program by which teachers may make alinement of their language offerings in the secondary school. Also pursuant of this viewpoint is *Conducting Experiences in English* (177), the recent sequel of the two previous monographs of the National Council of Teachers of English on the experience and correlation philosophy. The volume is based on the committee report which is comprised of the individual contributions of 274 cooperating teachers of English, together with inclusive annotated bibliographies. Not only does it become the epitome of inspiration for every teacher from direct contact with successful classroom procedures but it connotes a healthy spirit of experimentalism which is bringing the language arts classroom to greater import in the lives of boys and girls.

The classroom use of psychological and developmental novels as an approach to insight and maturity reaching beyond the mere "experience" of students was the basis for a study by Rappaport (277), who, with similar

control and experimental groups of juniors and seniors in high school, over a period of six weeks produced test results which evidenced statistically valid increases in knowledge of personality and behavior over and above that of the control classes. Rosenblatt (280), for the Committee on Human Relations of the Progressive Education Association, in a scholarly and portentous volume, presented the underlying philosophy and possibilities of literature as a means of expanding the personality in the exploration of new literary experiences.

The writers on the philosophy of curriculum building for the individual child are inspiring. Too many of our language and literature studies, however, lack insight and perspective; there is just a beginning in the recognition of an organismic viewpoint, the continuity of growth, the place of emotion, and the process of individuation. Too little weight is still given to overt reactions as symptomatic of maladjustments of the general personality or immaturity and too much to their being indications of literary and linguistic taste. Our research in language awaits further technics of the case-study method.

Specific studies which indicate the trend toward a consideration of personality development in the offerings of language arts are those of Lacy (245), who investigated by means of standardized tests the individual differences in the English ability of groups of high-school seniors, and Farrell (204), who, using questionnaire and observation of eleven literature teachers, cautioned that literature may lose other values by a social consciousness that verges on propaganda. From a comparison of a composite list of ninety-seven character traits and the contents of the twenty most popular literature texts in the state of Indiana, H. W. Painter (270) found emphasis upon sociability, courage, initiative, and consideration of others. Livingston (251) described and evaluated thirty-nine novels to determine their usability for fostering social consciousness in high-school students. J. Miller (266) secured the evaluation of a list of pertinent problems in American life by representatives of various occupational groups in the community; she then selected and organized literary materials around these problems. The resultant classroom experiment on the secondary level proved stimulating and promising.

Presaging more extended use of such materials for personality evaluation within the classroom, an analysis of the form and content of the creative writings of fourth-grade students over a period of a year was made by Bellows (169) who observed that these children wrote more stories than any other form, that girls wrote more of all forms than boys, that personal experiences, children, situations, and nature were the popular topics of both boys and girls, and that the brighter children wrote more on such themes as nature and fanciful characters, while the children of lower intelligence chose themes of toys and personal experiences. Similarly, Leary (248), exploring the possibilities of free compositions as an aid to the

teacher in child guidance, in an examination of the creative writing of children in Grades IV, V, and VI throughout a year, revealed likes, dislikes, fears, and traits not known by parents and teachers.

Fusion and Correlated Curriculums

The place of language arts in the entire curriculum offering and the merits of integration are still scientifically conjectural; they have been the inspiration of numerous more or less objective studies by enthusiastic classroom teachers since the appearance of *A Correlated Curriculum* (304). Too many of these studies contain indication of wishful thinking on the part of the experimenter; too many are illustrations of the pathetic fallacy. There is need of better isolating of all factors and attenuating circumstances, since it is clear without research that an inspired teacher of an experimental group will produce better results than will the lackadaisical teacher of a "control" group. Other disturbing factors are the limited periods of observation and the use of too few of even the limited measures which we have.

The potentialities of a correlated curriculum on the third-grade level are favorably reported in detail by Gillett (211); Johnson (238) manifested the advantages of the integrated program in a control-group experiment on the ninth-grade level; successful progress in secondary core curriculum planning was presented by Sparhawk (294). Judging by test results, Chase (183) found the teaching of English and social science as a fused course more effective than separate courses. Bown and Smith (173) concluded that it is practicable to have a typing course in the seventh grade in place of or along with English, after an experiment with over five hundred seventh-grade students who omitted the regular English course to take typing and made greater gains in English skills than did a similar group who took the specified English course.

After responses from a questionnaire sent to schools teaching trade and industrial English, a review of the literature, interviews with industrial and businessmen, and a consideration of the student needs of his classes, Pallissard (272) formulated a suggestive procedure for securing and completing up-to-date related English material for trade and industrial education in high school. E. Howard (235), making a compendium of the literature of integration from 1933-37, reported much substantiating evidence that the integrated program was gaining in popularity as a means of extended opportunity for expressional development of the student. Clement (185) considered the gain in individualization of teaching as more than offsetting any eliminations of selections of literature in fused courses, basing her conclusions upon her extended visitations to schools, observations, and interviews with teachers. Fisher's classroom appraisal (205) of a combined English and social studies course manifested expedient technics.

Literature Curriculum

The last three years have been characterized by a paucity of studies dealing directly with the teaching of literature. Early in the period, Block (172), in a controlled experiment, demonstrated that a selection of their own problems and the pursuit of individual research by a class of high-school seniors were more effective for interest and information than teacher-imposed topics in a course in literature. La Brant (243) also presented the merits of a free reading course for stimulating thinking in adolescents in the senior high school. Hall (225), desirous of functionalizing the theories for the teaching of literary appreciation in a ninth-grade class in English, admitted the inadequacy of our instruments of measurement but judged favorably the units from anecdotal records. A type of study which is directional in scope was that made by V. F. Smith (293) on humorous situations in sixth-grade literature, her careful analysis of which indicated the social nature of humor, its evidences in children, and the possibilities for development in the classroom.

There has been much research in extensive reading largely emphasizing reading interests on various levels; these phases were considered in the first chapter of this *Review*. The interest study obviously impinges on all areas of instruction in literature. Investigators are prone, it seems, to place much confidence in overt evidences of interest; they trust these too implicitly without a realization that the individual likes what he is familiar with and that, although difficult of objective evaluation as yet, tastes and interests are not static but fleeting, as classroom teachers will verify.

Teaching of Poetry

Indicating a renewed concern for the vitalizing of poetry on all educational levels, the three-year interval has produced a number of studies relating to the objectives, content, and methods of this literary area. Of interest is the work of Demarest (200) in the evaluation of fifty-five articles pertaining to the teaching of poetry, found in the issues of five educational periodicals published between 1930 and 1938, in which she noted the increased emphasis of enjoyment as the chief aim of reading poetry by boys and girls both in and out of school, from which basic premise all phases of the teaching of poetry take their departure.

Mays (263), after tracing the history of children's poetry from the classical period to the eighteenth century, surveyed briefly its place in American textbooks since the *New England Primer* and studied intensively its status in fifteen second-grade readers published from 1929 to 1938, thus supplementing previous research. While revealing a decrease of 4.3 percent in the space devoted to poetry in these readers since 1931, the study pointed to trends away from the poetry of moralization toward that on the experiential level of childhood, toward the encouragement of the creative expression of children, and toward the consideration of the responses of children themselves as to the poetry they enjoy.

Developing appreciation—Howell (236) provided evidence from research and authoritative opinion that literary value and suitability to children are considered the outstanding criteria for poetry selection for children and that any technic which increases children's comprehension and familiarity with poems tends toward development of love of poetry. After presenting poetry for twenty minutes per day for nine months to a group of forty-two fourth- and fifth-grade children, Dallas (193) observed that the teaching of poetry through an analysis of the elements seemed effective as a natural transition from the child's level of experience to a greater perception of the imaginative world. Similarly, a study made by McMurry (258), with two classes of seventh-graders matched as to mental ability and chronological age, by employing two contrasted technics of the study of poetry with a consideration of its poetic qualities and by a presentation with no emphasis on its specific values, revealed test evidence to show that the group taught poetry regularly with emphasis on poetic qualities had greater ability to judge poetry and gained fuller meaning and deeper appreciation of poetry than did the other class.

Manicoff (260), using equated experimental and control groups totaling 185 students in junior high school, studied, by means of questionnaires, anecdotal records, individual reading, and written contributions, the effects of extensive teacher-reading of poetry without any attempt at analysis, comprehension, or memorization. She analyzed data from the "poetry-saturated" groups which were found to display an increased love of poetry, a desire to read more of it and to create their own, over and above those of the control groups. For the purpose of evaluating the effectiveness of imitation as a means of developing appreciation in poetry, Woesner (309), after selecting two senior high-school groups of similar mental ability range and scores on poetry-appreciation tests, reported that there was no clear evidence differentiating advantageously the group that had received training in imitation of poetry over the class whose study consisted of reading and discussion, although both groups gave indication that poetry appreciation can be cultivated in the majority of students.

A research project which corroborates what many scholars have often individually confirmed is that of Hindus (232), who sought to isolate the factors affecting the evaluative judgments of poetry made by forty-five volunteer advanced college and postgraduate English students by means of a test, part of which gave the student the opportunity to show his comprehension of and to express his judgment on poems of which he had the critical opinion before him. Another group of poems had only authors' names; a third was not identified as to author. According to his test results, these literary specialists were unable to distinguish between what the "critical hierarchy" has called genuine and spurious poetry, and they were characterized by low comprehension and inabilities in reading.

Children's rhymes—Of much significance to curriculum building in literature as indicative of future possibilities for securing sociologically-

determined and indigenous materials, as well as of intriguing interest in itself, is the collection of folk jingles of American children today made over a period of years by D. G. Howard (234). Assisted by announcements in the national journals and by the efforts of many individuals, she compiled this anthology from numerous sources, well-distributed areas, and representatives of varied socio-economic groups. An analysis of the materials thus secured disclosed folk literature of childhood as emerging from the general stream of folk tradition and characterized by an interlocking of realism and romanticism. The major interest lies in elementary physiology; "nonsense" pervades children's folk ways. There are rhyme chanting, onomatopoeic effects, and quantitative rhythms of large bodily movements.

Teaching Written Composition

Several studies during the period converge upon the advantages of the functional over the grammar method of acquiring facility in written composition. A doctoral dissertation by Frogner (206), who used paired groups of ninth- and eleventh-grade students, showed general test results supporting the thought method, while for the same purpose, Milligan (268), in a controlled experiment with ten classes in Grades IV and V, found slight advantage for the incidental over the formal method. That sentence length is a significant factor in the comprehension difficulties of sentence structure was proved by Henley (230) through constructing tests which were administered to 227 children of the third and fourth grades. In a four year-study of 4,000 high-school students, R. J. Adams (157) demonstrated on the basis of definite units "that certain elements in English composition can be effectively and measurably taught." Gaiser (208) emphasized the importance of purposeful planning and freedom in the improvement of technics in prose composition by juniors and seniors in high school. Chalifour (182) produced test evidence that training eighth-grade pupils to grade compositions will appreciably increase the quality and decrease the errors of their compositions.

State department bulletins on composition—Facilitating the work of the classroom teacher in curriculum building are the comprehensive publications by several state departments of education: Pennsylvania Department of Public Instruction (273) presented principles of composition teaching from approved practice in secondary schools, Wisconsin Department of Public Instruction (307) on the evaluation of accomplishment in written composition, and Maryland Department of Education (262) on the teaching of oral and written composition in the Maryland high schools.

Studies on textbooks—The period presents at least four research problems on composition textbooks. L. F. Smith (290) studied by topic and content emphasis composition textbooks since 1890 from the early rhetorics to those of the unified program. Elementary-school language textbooks are more functional than formerly but continue to stress artificial discriminations and niceties, according to Dawson (197, 198); her extended critical

summary of the research in this field included bibliographies as well as evaluation of past studies concerning the historical development of elementary language texts and an investigation of current practices in their use. From an analytical study of twelve ninth-grade grammar and composition workbooks, Clanton (184) calculated that 51 percent of their space is devoted to the study of the parts of speech and sentence structure.

Oral Composition

Further pertinent research in oral English is contingent upon perfection of our instruments for long-term studies of genetic development of language and commensurate needs at various levels; however, present limitations should not divert the classroom teacher from the use of informal methods which may assist her with the individual problems of her group. There is indication of recognition that much of the language usage of boys and girls is oral; a research area has emphasized this phase, both for its own problems and for the light which speech throws upon our knowledge of the general personality development of the individual.

La Brant (244) called attention to a consideration of language acquisition as a part of social adjustment and mental hygiene. J. E. Anderson (162) summarized the studies on spoken language and substantiated by research conclusions the importance of a stimulating linguistic environment for the education of the young child and for the high-school student. Bunge (179) discerned in a survey of courses of study, texts, and literature that the proportionate scale of time allotment for informal English descends very rapidly through the grades; there is a paucity of material for the teaching of informal speech.

Dawson's investigation (196) of the conversational topics in twenty-four elementary schools contained many suggestions for classroom use. A valuable contribution to the implementing of the oral language curriculum is the evaluation of materials for this area made by Netzer (269). Other possibilities for oral English expansion were noted by S. Adams (159) with regard to the relationship of verb forms to the language-learning process in young children, and by Baker (166) in a discussion of successful methods of teaching social conversation. Davis (194), through a study of accuracy versus error as a criterion of children's speech, noted, among other items, a gratifying improvement in the early school years by children from underprivileged homes. Dingman (201) opened a functional area by his research on the language errors of a school system in which the language handicaps of the foreign element greatly hinder their vocational opportunities and social adjustments outside the community.

Motion Pictures and Radio in Language Arts

In this area subjective generalizations have thus far been rampant; the research has been largely in the nature of consensus and surveys of practice. Dale and others (192) briefed and adjudged a bibliography of three

hundred articles published within the preceding ten-year interval concerned with the general function of motion pictures in education. Based on a three-year study of the place of the radio in the classroom, Harrison's contribution (226) is functionally significant. Laine (246), in a Regents' Inquiry study, stressed the evaluation of the radio on its contribution not only to the curriculum but also to the interests, attitudes, and activities of boys and girls. She found motion pictures used most effectively on the junior high-school level and less so in the elementary and the secondary school.

English Language

Steadman (298) gave a résumé of the articles on English language in the learned and semilearned magazines published during 1937 which dealt with language problems actually arising in the classroom. Further bibliographies of this nature should serve to produce functional philological material for the classroom teacher. The monograph of the National Council of Teachers of English, *Facts About Current English Usage*, by Marckwardt and Walcott (261), tabulated the elements of usage which composed Leonard's *Current English Usage*, together with an abridgment of the ruling upon each in the chief sources of authoritative scholarship in English. Canby (180), sensitive to the need among educators for a more sociologically-determined viewpoint, postulated that standards must be derived from trends of English usage; Pooley (275) asserted that the most effective method of altering the level of usage is ear training; Barnes (167) contended that "one is effective in language in proportion as he conceives of language as social activity" and that language defined as a mode of social conduct transcends the limitations of language as thought, language as convention, and language as literature.

Vocabulary Studies

Vocabulary studies have made progress from the earlier mere word count; there is a wholesome trend toward research in the relationships of vocabulary to social and economic backgrounds. Further studies must accept the genetic approach; the vast unexplored region of semasiology holds many possibilities.

Concerning the vocabularies of 629 high-school students, the major findings of Cunningham (191) were: vocabulary scores vary directly with intelligence, high scholarship coincides with extensive vocabulary, there is practically no difference between the average vocabulary scores of boys and girls, pupils who have studied a foreign language show superiority in vocabulary to those who have not, students who come from homes in which a foreign language is spoken make a lower vocabulary average than those who come from English-speaking homes, boys and girls from towns show a higher score than those from farms, as do also those from homes with telephones, and there is very slight relation between father's occupation and the student's vocabulary. A study by Davis (195), pertaining to

the development of linguistic skills in twins, singletons with siblings, and only children, pointed to the superiority of singletons and only children and the marked effect of environment.

Seegers (283) carefully summarized and evaluated the import of 263 research studies which relate to the problems of vocabulary development, a contribution most significant in classroom implications. Keys and Boulware (241), to determine the progress made over a period of a year and under comparable educational opportunities by twenty-five students differing in amount of residual hearing and age of hearing loss, found "coefficients to indicate that the extent of hearing loss affords a more valid basis for forecasting language acquisition on the part of deaf children than any criterion which the writers have discovered in existing literature," thus suggesting that audiometers can serve well for educational prognosis.

After an investigation of the vocabulary of *Silas Marner*, Cox (188) concluded that it presents many difficulties for tenth-grade students. In an examination of the classical element in the usual offerings of high-school literature, Wenner (305) discovered a total of 415 specific classical allusions. Kirchner (242), in an exhaustive study of the biological terminology found in the high-school classics from thirty-seven courses of study, reported that students who knew all the words of the Thorndike list would understand only one-fourth of the biological terms in these classics. The above studies concern presumptions which often form the basis of our teaching of literature.

English Usage

Employing a test containing 105 items of English usage with pupils in Grades IV-XII, Berns (170) established levels at which these items are learned and also indicated their relationship to the educational and occupational status of the parents. Dell (199), classifying the errors of 496 standardized test results and of 525 themes by the same students, concluded that teachers disproportionately emphasize the items of which the standardized tests are constructed and that these are not the errors made in themes, where 90 percent are incorrect punctuation and capitalization. Blair (171) exhibited data to indicate that two-thirds of a group of junior high-school students made sentence structure errors the preponderance of which were the "run-on" variety; foreign parentage, foreign-speaking homes, age, grade, or former schooling did not appear to be outstanding influences; social experience, extent and type of reading, attendance at motion pictures, and listening to the radio tended to make for facility in written expression.

Bilingualism

The significance of bilingualism in the teaching of English has been asserted in the research of the last three years with definite concern for aiding classroom practice. Arsenian (163) observed that, during the early years,

bilingualism hinders progress in either language, but the facility of the bilinguist in the combined languages is equal to or superior to that of the monoglot, a consideration often ignored by investigators in short-time studies. Coale and Smith (187) compiled a bulletin of successful practices in the teaching of English to bilingual children in Hawaii and, in the same volume, presented an extensive analysis of the errors in oral and written usage made by public school children in the territory. Coale (186) made a comprehensive grade-sequential schematization of the results of his study of the problem elements in English usage among the students of Grades I through IX in the public schools of Hawaii from which he has deduced practical suggestions for the use of the materials in curriculum planning.

M. E. Smith's more recent study (291), by verbal recording of the language development of children from two to six years of age who were born in Hawaii from non-English speaking ancestors, produced evidence that these children are so retarded that on most criteria they are at about the level of a three-year-old child from less polyglot surroundings. She suggested that congregation in racial groups is a contributing factor, that the pidgin English contributes to incorrect usage, and that bilingualism makes for overuse of interjections, immature sentences, and absence of complex sentences. As factors which make for better development, she noted English in the home or parental education, older brothers and sisters for more but not better language usage, and attendance at kindergarten or nursery school, especially if these have Caucasians enrolled. There is carry-over to the home; preschool children prefer English.

Powers and Hetzler (276) reported on the successful methods of teachers in the Seattle schools toward the mastery of English, Americanization, and social integration of children of oriental parentage. Kaapu's illuminating research (239) revealed little influence of Japanese syntax and idiom upon the spoken and written English of a group of ninth-grade students in Hawaii in spite of the large numbers of Japanese children, largely, she believed, because of the lack of social utility of the language there, the divergence between the Japanese sentence pattern and that of English, and the cultural differences between the Japanese and the more dominant groups in the social milieu. By means of extended surveys of a high school in El Paso, Texas, Jackson (237) isolated specific language difficulties of Spanish-speaking students and indicated procedures which would facilitate their language adjustment, perceiving through her research that, although the handicap diminishes throughout the secondary-school career, without definite remedial work it still remains a deterrent after the four years. Meriam (264), as a part of a six-year experiment in the incidental learning of English strictly in terms of life activity, demonstrated by Mexican children in La Jolla, California, that this procedure can be employed advantageously for bilingual groups. A helpful bibliography of references

on the language handicaps of non-English-speaking children was published by the United States Office of Education (300).

English Composition in College

A preponderance of the studies in college English are in the field of freshman composition. Two surveys point to many discrepancies of practice and the general perturbation which exists. Laird (247), summarizing its status historically, and by questionnaires to 175 institutions of the North Central Association, indicated that freshman English in three-fourths of these colleges and universities was the conventional handbook-composition course, while the remaining schools were combining it with reading or literature looking toward more functional training. By the questionnaire method, the aims and practices of thirty-four member institutions of the Ohio College Association were procured by Maddox (259) who commented that there were dissatisfactions with the unpreparedness of freshmen, some inclination to fix the blame upon the secondary schools, and apparently a constant attempt on the part of the colleges to evaluate and improve their technics.

From a study of catalogs, journals, and published research on 195 public and 228 private junior colleges, M. Smith (292) held a more hopeful picture for many of them in their experimentation in varied offerings providing for reading, speech, individualization, socialization, and attention to cultural and vocational needs of students; forty-two public and twenty-six private institutions were adamant in preferring only the traditional courses.

Several studies of content and method were reported during the interval. That they deal with solutions of the needs of individual students is commendable; that there are not more such reports, in place of many which purport to indicate group trends, is to be deplored. H. R. Anderson (161), after research and survey of practice, organized a two-semester two-hour course in oral and written English which met the enthusiastic commendation of the students and demonstrated by test results significant gains in composition skill. Hickman (231), working with fifty-five students at Sioux Falls College, provided an individualized freshman English course with one class meeting per week and conference periods. Using a sequence of tests before and after a course in subfreshman English, Avery and Williamson (164), at the University of Minnesota, reported that this course did not successfully prepare most of its students to pass the placement tests for regular composition classes, that a significant number of these students were able to do satisfactory work in the regular composition course despite the fact that they had not met the standards of the placement system, and that the test gains were greater for those who took subfreshman English than for students who were assigned to the course but did not take it. Wise (308) told of hopeful gains in reading, elimination of speech defects, and writing by means of a comprehensive freshman English course.

Literature in College

A limited number of studies concerning the teaching of literature on the collegiate level appeared during the three-year period, among which are two surveys of practice in this area. Carli (181), to determine the nature of their first courses in literature, made an extensive study of the catalogs of 185 selected liberal colleges, the returns from questionnaires to instructors in 103 colleges representing 39 states and the District of Columbia, and information gathered from personal visits to seven colleges. From these data he inferred that, although 79 of the 131 were of the survey type, first courses in literature were designed for specialists rather than for the general students who formed the majority in these classes. In like manner, Gallaway (209), after a survey of American college catalogs, recognized the need for undergraduate courses in the background of modern literature and in reading for leisure, finding only two institutions which seemed to recognize the problem at all.

By the *Literary Acquaintance Test* and the *Minnesota Reading Examination*, college students of the core curriculum showed distinctly superior gains over an equated group who took regular English courses in a two-year study by Heaton (229). Hoole's contribution (233) clearly indicated the paucity of general reading among college students; 161 titles represented 16 percent of the total. Looking toward the expansion of selections he suggested curtailment of reserved sections, departmental bibliographies, and more careful assignment of term papers for greater extensive reading.

Prediction of Achievement in College English

Gladfelter (212) at Temple University found that scores on the Co-operative English Test were as reliable for prediction as the high-school record or aptitude test, with the usage section in itself having as much predictive value as did the entire test. In a study of 661 men and women students entering the University of Buffalo, Wagner and Strabel (303) concluded that college English performance may be predicted about equally well by a measure of secondary-school English, a secondary-school language, a general high-school performance test, or the Co-operative English Test. To foster more adequate articulation, Sarbaugh (281) advocated special high-school groups for college examination preparation after a study of the often diametrically-opposed statements of objectives of high-school and college English. Hays (228), from data based on a historical survey, characterized high-school English as changing in theory but actually in practice following the tradition of college entrance requirements. Improvement in the status in English of entering freshmen over a period of five years was noted by Cromwell (189) when college instructors placed conscious emphasis upon the improvement of technics in composition and when high schools were made cognizant of the test results made by their students.

Stalnaker (296, 297), concerned with the English examination, claimed increased reliability for the essay type provided options were eliminated, the topics were defined as to audience and purpose and tried out in advance to eliminate ambiguity, and the readers realized that they cannot make an absolutely qualitative judgment. Slightly higher college averages were made by students entering the University of Buffalo who had taken less than the four years to complete high-school English courses than were made by members of the control group, according to the data of Wagner, Eiduson, and Gibbons (302) extending over a five-year period. Grinnell (222), in a study of the relationship between intelligence as measured by group tests and high-school marks in English of 92 high-school students, attested that there was a somewhat higher correlation between mark in English and vocabulary than between mark in English and intelligence quotient and that vocabulary knowledge showed a much closer relation with intelligence quotient than with achievement in English.

Evaluation of Studies

The preceding review has attempted to identify and to inform the reader of the character of studies pursued during the last three years. Only about one-half of the studies made throughout this period were included; the others were either irrelevant to the purpose of the review or were thought to be of insufficient interest or merit to be included. A few words of evaluation may tend to summarize the report.

One who has followed reviews of studies in English the last fifteen years will recognize little change during that time in the nature of studies made. Error studies, status investigations, poorly controlled "equated group" studies, comparison of methods, and attempts to teach uninterested pupils the niceties of English appear much the same as they did when the late Rollo L. Lyman began reviewing them so skilfully. Few studies reflected modern progress in educational thought or practice. In the few where the question of pupil experience or interest was utilized or where social values or creative development were stressed, the experimenter frequently expressed fear that some "more meritorious literary values" would be lost. Research in harmony with the theories of organic development is badly needed.

There is a preponderance of studies revealing haste and short-term examination of pupils. Developmental studies cannot be made in a few months in order to satisfy the demands of graduate degrees. While experience gained in making certain studies may have some values for the student, it is difficult to see how many studies contribute to the advancement of knowledge about development of children. There may also be some legitimate question about the value of learning to do something for a degree which should not be done when one enters the profession. Few studies go beyond the simplest explanation or discovery of contributing factors to a learning condition. A poor breakfast or the loss of a friend may affect the

expression of learning more than is seen in a hasty study of data. More attention could well be given to describing situations surrounding discovered conditions. There is also a paucity of insight into the ultimate possibilities of development through improvement in classroom procedures and materials. Too much reliance, as indicated in conclusions, is placed upon resorting to drill or motivation or some simple device. The basic disturbances are too little explored. We still cling to outworn remedies and to the determination to teach a certain body of material or level of achievement.

Prediction studies based upon statistical correlations of former and immediate achievement persist. The modern concept of guidance has not basically disturbed this type of research any more than has the repeated failure to find valuable prediction instruments. Such low correlations as usually emerge have made predictions valuable chiefly for groups of pupils able to achieve academic subjectmatter, but even then they are too low to make careful individual prediction. Implications for individual guidance cannot be obtained by using instruments yielding correlations which indicate only group trends.

One has a distinct feeling that the studies in English language being made today are less advanced than the successful classroom teaching which they purport to aid. There should be a greatly lessened emphasis upon studies made in terms of a philosophy we propose to renounce.

CHAPTER III

Foreign Languages—Classical and Modern¹

HARL R. DOUGLASS and OTHERS²

Foreign Languages in General

Introduction

STUDIES of the ancient and modern languages in the last three years seem to show an increasing tendency to present quantitative data applicable to the problem under consideration. To set up the criterion that all studies discussed here should be of the experimental, statistical, or normative survey types only might, however, lead to the exclusion of some useful studies; consequently, this criterion has not been applied in all cases, though the "how-I-do-it" type of article, admittedly useful in other particulars, has been avoided. The criteria developed by Tharp and McDonald (329) in their review of research in foreign languages have to some extent guided the selection of articles for this section.

The studies treated in this section represent the more objective and careful investigations in (a) foreign language enrolments, (b) aims of foreign language instruction, (c) success and failure of foreign language students, (d) methods of instruction, (e) the content of foreign language curriculums, (f) prognosis, (g) testing in foreign languages, and (h) bibliographical aids. Preceding the discussion of research by the teaching fields of German, Latin, French, and Spanish, certain articles of common interest to all these fields are reviewed.

Enrolments

In 1934 the ratio of registration in foreign languages to number of pupils enrolled in public high schools was approximately .36. This proportion is somewhat less than half of what it was in 1910. The trend in ratios for all foreign languages, and for four languages individually, is shown in the following table. In 1934 Latin led all other foreign languages with 16 percent, followed by French with 11, Spanish with 6, and German with 2 percent. All others combined had less than 1 percent. In terms of net change for the period shown, Latin suffered the greatest loss in percents, German was next, whereas French held its own, and Spanish increased—as compared with 1910. The changes since 1928 are also interesting.

¹ Bibliography for this chapter begins on page 167.

² Harl R. Douglass assumed general responsibility for the chapter. C. H. Handachin, J. Douglas Haygood, and Laurence W. Ross contributed sections as indicated in the chapter. The entire manuscript was submitted for review to M. E. Broome, assistant superintendent of schools, El Paso, Texas, and to James B. Tharp, Ohio State University, Columbus, Ohio. In addition, the section on Latin was reviewed by W. L. Carr, Teachers College, Columbia University, New York City, and by Mark Hutchinson, Cornell College, Mount Vernon, Iowa. Also, the section on romance languages was reviewed by Hugo Giduz, University of North Carolina, Chapel Hill, North Carolina, and by Walter Kaulfers, Stanford University, California.

Table 1.—Foreign Language Enrolments: Percents of High-School Pupils Enrolled

	1910	1922	1928	1934
All foreign languages	83	55	47	36
Latin	49	28	22	16
French	10	15	14	11
Spanish	1	11	9	6
German	24	1	1	2

As a subjectmatter field, foreign languages with a ratio of .36 were far behind English with .91, social studies with .70, science with .58, commercial studies with .55, and mathematics with .51. In spite of the losses in percents of high-school students the *number* of pupils enrolled actually continued to increase slightly between 1928 and 1934 in every language.

Hotz (318) reported that among subjects dropped from high schools accredited by the North Central Association of Colleges and Secondary Schools in the period 1930 to 1935, foreign languages lost most heavily, particularly Latin and Spanish. While for other fields new courses were added in twice as many schools as those in which courses were dropped, foreign language courses were reported dropped in 635 schools and added in only 466.

Psychology and Prediction of Success

A treatise of value to modern language teachers is that of Vigotsky (330), whose main findings were: "*Association* psychology considered the connection between word and thought as an external one. *Gestalt* psychology, the behaviorist theory of thought as speech minus sound, and the entire independence of word and thought as believed by the Wurzburg school, have in common the anti-historical attitude. Only a historical psychology, a historical theory of inner speech, . . . lead to a correct understanding of the problem. The bond between thought and words is a living process. The word deprived of thought is a dead word. But a thought that has not been embodied in words remains a shadow. The connection between thought and word, however, is not a primary one. It originates in the course of development and develops itself."

Many investigations were made in the past three years in which psychological factors involved in language learning played some part, though few of these studies were entirely concerned with "pure" psychology. Weisert (331) surveyed all available literature bearing on the doctrine of "mental discipline," with particular attention to experimental evidence on transfer of training. He concluded that the cycle had swung from a favorable peak in 1900 to almost complete disbelief by 1920, but that the doctrine in

modified form had gained favor during the 'thirties due to the experiments of Judd and others (320). They concluded that "at the higher levels, transfer is typical, not exceptional . . ." (320:200-201).

Spoerl (326) reported an experiment in which a number of tests were given to advanced German classes at the American International College to determine what factors entered most actively into the learning of a foreign language. Results indicated that language learning showed definite correlation with intelligence for women, and none for men, suggesting the presence of diverse factors. The relation between German grade and scholastic grade indicated to Spoerl that language ability is not an isolated type of learning.

Seagoe (325) administered various tests to sixty-four boys and fifty-six girls whose records were being followed in connection with the Carnegie Guidance Experiment in Pasadena, California. Teachers' marks in Latin, Spanish, and French constituted the criterion of success. "The reliable tests in order of decreasing excellence are Terman, Kuhlmann-Anderson, Stanford Arithmetic, Otis and Stanford Reading. The Luria-Orleans Language Prognosis is the lowest on the list, perhaps because it claims to predict only for modern languages while data from Latin are included, thus decreasing the validity." The writer offered the following critical points for advising pupils to take or not to take foreign languages. (The method of deriving these points was not stated.)

Test	Probably should not take	Uncertain	Probably recommend taking
Terman I Q (Group).....	99	100-126	127
Otis I Q.....	94	95-137	138
Kuhlmann-Anderson I Q.....	93	94-127	128
Luria-Orleans.....	31	32-121	122

Seagoe concluded that "the total test picture modified by subjective estimates of personal factors is a better estimate of probable success than any single test." She warned that any attempt to establish definite limits below which failure seems certain and above which success seems assured must be treated warily.

Methodology and Curriculum

Chapman and Gilbert (312) concluded from an experiment in learning the foreign equivalents of English words that not only does learning take place more quickly when the English equivalent is familiar, but the as-

sociation is more permanent. Forlano and Hoffman (317) stated as their findings from an experiment with "guessing" and "telling" methods of learning words of a foreign language that it is better to tell the correct meaning immediately without allowing the learner to guess a possible wrong meaning. It must be noted, however, that the words learned in this case were isolated words, not words in context.

An analysis of the course offerings in foreign languages by Tharp (328) indicated that they are being differentiated for social reasons, and that textbooks reflect the increasing application of social purposes in our language courses. Kamman (321) sought to determine the present status of the teaching of scientific French and German in a representative list of colleges and universities. Of the 238 catalogs, 30 listed a course in scientific French, the mode being a two-semester, two-or-three-hour-a-week course with a prerequisite of one or two years of French. One hundred and seven catalogs listed courses in scientific German. A two-semester, three-hour-a-week course was the mode, with a prerequisite of one and one-half to three years of German. Of sixty-seven replies to a questionnaire, eighteen reported a scientific French course, the mode being a two-semester, three-hour-a-week course.

Mechanical Aids

Increasing interest is evident in the study of visual and mechanical aids in the teaching of foreign languages. Bernard (361) compiled a list of the films and slides available to schools, concerning Spanish-America and Spain, and discussed their production, use, and value. Later in his report, he reviewed three French films. In 1937 Bond (365) analyzed six foreign films. Since 1934 Bond has viewed over two hundred foreign language films in eleven languages in search of film programs for International House at the University of Chicago. Fifty of those, including the six in the preceding study, were reviewed by him in a recent pamphlet (364). Twenty-six of the films were in French, 10 in German, 2 in Spanish, 1 in Italian, 4 in Russian, 1 in Yiddish, 2 in Hungarian, 1 in Chinese, and 1 in Japanese. A study of the use of motion pictures in modern foreign language instruction was made by Brickman (366), covering general bibliographical sources, experimental studies, and sources of equipment, methodology, etc. The use of film dialog in language teaching was studied by Mercier (407), who investigated the dialog script of *Merlusse* and *Emil und die Detektive*, as edited for school use in preparation for hearing and seeing the films. A selection of available films is suggested. A general critique of the educational film was made by Levine (401).

Radio was the subject of a study by Engel (380), who compiled and reported a table of radio stations which were broadcasting foreign languages in 1937-38.

Latin³

LAURENCE W. ROSS

Aims and Outcomes

Perhaps the most carefully controlled research in the teaching of Latin has been concerned with the validity of the conventional aims in Latin instruction. For example, does the study of high-school Latin contribute materially to a student's English vocabulary mastery? In Pond's study (348) of the influence of Latin learning upon word knowledge, taking into consideration the known intelligence advantage of the Latin students, the resulting scores of 129 non-Latin and 79 Latin students on the Survey Test of Vocabulary, Form Z, were compared. A biserial r of .29 was found to exist between vocabulary knowledge and previous study of Latin. The number of semesters spent in Latin study apparently had more effect than the quality of achievement in Latin. General intelligence was a major conditioning factor. In sum, matched on bases of sex, general intelligence, age, school achievement, and number of semesters in school, two similar Latin and non-Latin groups showed little if any difference in acquired vocabulary knowledge.

Douglass and Kittelson (340) attempted to ascertain whether Latin pupils, as they are taught in the typical secondary school of today, are significantly superior to non-Latin pupils of equal mental ability in English vocabulary, spelling, and grammar. From six fairly representative secondary schools in the midwest were selected 1,121 pairs of pupils who had and who had not studied Latin, and 29 trios who had had respectively three or four years of Latin, two years of Latin, and no Latin—all matched on the bases of sex, chronological age, intelligence, economic status of family, number of years spent in modern foreign language study, and first-year English marks. To these students tests in English vocabulary, spelling, and grammar were administered. The results revealed (a) rather systematic though small differences in vocabulary mastery favoring the Latin pupils, especially in the cases of students who had had more than two years of Latin; (b) little difference in spelling ability; and (c) slight superiority for the Latin pupils in grammar mastery. While students who have had two years of Latin are likely to do slightly better in vocabulary, and students with more than two years materially better than non-Latin students, yet the differences are so small as to make one suspicious that the present methods of Latin teaching are not the best for producing development of related abilities in English vocabulary, grammar, and spelling.

Another study, by Smith and Douglass (350), attempted to discover the relation existing between the study of high-school Latin and marks to be expected in the first year of college. The investigators analyzed the arts college records of 1,025 men and women at the University of Minnesota, pairing equated groups of students who had had respectively: (a) two units

³ Owing to the fact that no report of Latin research was made for the preceding three-year period, a few earlier articles are treated here.

of Latin and no-Latin; (b) two units of Latin and two units of French; (c) 1-4 units of French plus two units of Latin and only two units of Latin; (d) two units of German and two units of Latin; (e) and 1-4 units of German plus two units of Latin and only two units of Latin. The differences in honor-point-ratios for the first year of arts college work were observed for the various groups. The results of the observations showed that, on the average, students who have studied Latin in high school may be expected to make slightly better marks in the first year of college work than students of equal ability who have not had this training, and in addition the Latin students seem able to carry a heavier load of work. Additional study of a modern foreign language while in high school apparently adds nothing to this assurance of higher marks for Latin students.

Hadsel (343) purportedly substantiates the report of Smith and Douglass with data tabulated by himself to show the relation of four, three, two, and no years of study of Latin in high school to marks on tests for college entrance. All Latin groups made higher average scores than did the non-Latin group, and the four- and three-year groups were "very much better off than the non-Latins." Unfortunately for the interpretation of these results, no indication of matching on the basis of intelligence test scores was given in this report.

Content of the Latin Course

Faced with the realization that the study of Latin is inherently difficult to most students because of the multiplicity of inflected forms to be learned in addition to the basic vocabulary, progressive Latin teachers and investigators have for years sought to determine by frequency studies the number of words and inflections of primary importance to young readers of Latin. Carr's study (335) of vocabulary in the first twenty-nine chapters of Caesar's *Gallic War* showed that pupils who have mastered the present official first-year word list will encounter 453 familiar words as opposed to 518 unfamiliar words. His conclusions point to the need for preparation of reading material with easy vocabulary for first- and second-year students.

In an effort to discover just how much case syntax a student should master in order to read and comprehend classical Latin, Carr (333) analyzed three passages of 10,000 running words each from Caesar, Cicero, and Vergil. He found that for the accusative case the mastery of prepositional uses, direct object, and "subject of an infinitive" covered all but 4 percent of the accusatives encountered. For the ablative case the prepositional uses covered about 40 percent of the occurrences. He also suggested a simplified working scheme for teaching the other cases, though no data are supplied.

In an effort to discover the most common endings of Latin words for the purpose of working out a less ponderous reclassification for their study by Latin students, Diederich (338) selected 10,000 Latin words at random from classical prose and verse. He found that seventeen "common" endings appeared in a proportion of 77 percent of the total number. "It is apparent,"

reported this investigator, ". . . that if one learns 17 common Latin endings and 24 irregular pronoun forms . . . one is in a position to interpret the function in a sentence of 92.5 percent of all the Latin words one is ever likely to read."

Another investigator, Strain (351), also looked for frequencies of inflectional forms in verbs, nouns, adjectives, and pronouns to determine which forms may profitably be omitted from Latin I. After tabulating 22,546 words from 133 sample passages by classical writers, he concluded from his frequency tables that (a) in regard to declensions, the nominative case should be taught first, accusative second, and ablative third; (b) as to verbs, thirty-two most frequently usable forms are suggested, led by the present tense of indicative active. Such studies should have some effect upon writers of first-year Latin textbooks, as well as upon classroom teachers of Latin.

In view of the recognized difficulty of Caesar's *Gallie War* as traditional reading material for second-year Latin classes, a historical study of its place in the Latin curriculum is of timely interest. In delightful style Owen (347), a Canadian teacher, has traced the steps taken by Caesar's *Commentaries* from its appearance as a college entrance requirement for Columbia in 1785 to its present position of prestige in the second-year course. It is probable that Caesar was not known to early Latin grammar scholars but received a boost about the middle of the eighteenth century when it was read by advanced students. In the post-revolutionary period it was read as a third-year text, and started its career as elementary material only after it had become required for college matriculation. He stated: "The radical of today is but restoring, more or less, the practice of a century ago."

Practices in the Teaching of High-School Latin

The now famous Report of the Classical Investigation of the American Classical League, published some fifteen years ago, attempted to influence Latin teachers toward a modification of traditional methods of teaching Latin. It was hoped from that investigation that new-type instruction would depart from the rote-memory, formal, paradigm study, followed by painful translation of small passages of classical authors only. Wrightstone (353, 354) attempted, in two recent studies, to compare the achievement of objectives in reading, vocabulary, and grammar of Latin pupils taught under traditional methods with achievement of these same objectives under new-type teaching practices. His first study, in 1935, used two equated groups of 125 pupils in each, taught by teachers rated equally high, and taught in schools equally well-equipped for Latin teaching. Applying the Cooperative Latin Test, Form 1933, to check the mastery of ninth, tenth-, eleventh-, and twelfth- grade pupils, he found that pupils taught under new-type methods were more than 12 points higher on the average (critical ratio 2.22)—a difference approaching statistical significance. Two obvious limitations to this study were: (a) the period of study prior to examination was not given, thus curbing adequate interpretation; (b) superior achievement indicated

in the score of an individual may have been achieved in one part of the test, or in one objective of the instruction. A more recent study by this investigator used for the same purpose equated groups of sixty-five pupils in each, with equally-rated teachers, the pupils being of equal socio-economic status, and in schools equally well equipped for teaching. His results, separating the functions, indicate that (a) new teaching methods with reading "Latin-as-Latin" lead pupils to achieve better scores in reading than those pupils in classes where grammar is taught; (b) vocabulary mastery of the two groups is not markedly different; (c) in grammar, the old-type methods show superiority. In sum, the tentative evidence indicated that pupils will achieve superiority in those objectives emphasized in the classes they attend; new-type teaching methods can achieve the newer objectives.

An article by Gummere (342) presented the results of a four-year experiment with an advanced class of superior students; at the end of four years the 24 superior students had maintained a superior quality of work and had completed work at least one year in advance of the regular section.

Cohen (337) attempted to determine the specific items of English grammar which beginners should know in order to have the proper foundation for the study of Latin. Analyzing 17 first-year textbooks, he found that in the first part of all books 14 items of English grammar were essential, and 10 other grammatical items appeared in the first part of all but two books. All 24 of these items must be known and understood before the work of instruction in Latin can begin, and remedial work for these apparently must be given concurrently with the early stages of Latin study. On the basis of his findings, Cohen recommended: (a) a pretest for the diagnosis of deficiencies in understanding of the items indicated in the textbooks as essential prior to a study of beginners' Latin; (b) a second diagnostic test after the first month; (c) explanations of all grammatical items peculiar to inflected languages as they are encountered in the texts; (d) a cooperative formulation of a course of study in grammar to be taught in elementary school, such course to represent the combined efforts of elementary- and secondary-school teachers of English to include the items revealed by this study to have received high frequency ratings.

Teacher Training

A questionnaire study by Gay (341) sought to determine predominant practices employed in the training of Latin teachers in 126 colleges, universities, and teachers colleges. Out of 86 replies the following facts were elicited: (a) 25 percent did not offer work in the training of Latin teachers; (b) 71 percent of the institutions offering training employed specific methods courses for Latin teachers; (c) one-third of the teachers of such courses had had no real high-school teaching experience. Other facts revealed disappointing situations in regard to practice teaching, directed observation, demonstration teaching, and placement opportunities. Gay concluded that one solution leading to better training opportunities for Latin

teachers might be the establishment of centralized training centers to provide the professional training for the last two years of the student's course.

Tests

Among the recent achievement tests in Latin there are several deserving of mention here. Revised forms of the Cooperative Latin Tests are now available, the Advanced Form edited by Kirtland and others (346), and the Elementary Form edited by Carr and Humphries (336). Both of these tests are reported to have reliability coefficients of .95 or over, and to accompany the tests, tables of norms, as well as individual profile charts, are available. While these tests are objective to a high degree, it is doubtful whether they can be expected adequately to measure pupil comprehension without more continuous context in the testing material. Bellinger and Schrammel (332) published the Kansas First Year Latin Test; Holtz and Schrammel (344) have worked out the Holtz Vergil Test for high-school and college use; a Cicero Test by Seller and Schrammel (349) is also available from the same research laboratory. Apparently there are standardized objective tests aplenty for the Latin teacher, though the comment should be made that the Latin achievement tests seem to lack the functional approach that is at present coming more and more into practice in the Latin teaching itself. Teachers who prefer to make out their own objective tests will do well to refer to an article by Hutchinson (345) which cited the need for highly objective tests on the comprehension of Latin to supplement other tests of ability in translation; the examples presented explore the various types of such tests possible.

Romance Languages

J. DOUGLAS HAYGOOD

Enrolment and Trends

Enrolment trends could not be determined with any degree of confidence, due to insufficient large-scale investigations. In 1937 Jessen (319) concluded that French had more nearly retained its position in American high schools at that time than had any other language. In the same year, Mullins (375) examined the total enrolment for the College Entrance Examination Board examinations in modern languages and concluded that the decrease in foreign language enrolment for 1937 was less than the decrease in all subjects, a reversal in the trend for the period 1932-35. Williams (429) studied the language elections at the University of Michigan and concluded that more students at the college level continue modern languages than Latin. He also analyzed other factors that affect enrolment, such as high-school grades and gaps between high-school and college study. Flickinger (383) studied the foreign language registrations in New York City schools for one year.

Aims and Objectives

Oral-aural vs. reading aims—The reading aim appears to have become generally accepted, but many methodologists are far from conceding the reading approach. The "oral-aural" approach seems still to be popular in many quarters. In New York City 2,745 students of French (first to eighth semesters) were asked their primary reasons for pursuing the study. Buda (368) interpreted a 36 percent vote for speaking and a 26 percent vote for understanding spoken French (making 64 percent for oral-aural skills) as indicating the most effective technic for teaching. In contrast to this investigation of Buda in his own schools, a citywide survey by Yaller (431) ascertained the four most popular reasons for studying the foreign language to be: culture, 31 percent; learning to speak, 24 percent; reading new stories in class, 12 percent; and dramatizing parts of the stories, 7 percent.

Integration—The degree to which aims, objectives, and integrative cooperation are being achieved is the concern of two studies. B. Wilkins (427) concluded, after an examination of the teaching of Spanish in Texas in the light of the *Handbook* prepared by the Texas Committee on Curriculum Revision in Spanish, that such teaching was meeting in a highly creditable manner the demands made upon it by a searching inquiry into values. The other study, by Reinsch (414), reported how modern language departments have cooperated with departments of English, music, social studies, home economics, art, industrial arts, commerce, physical training, science, social science, and hygiene, to show that teachers of languages can make a distinct contribution to the core curriculum.

Foreign Language Curriculum

Socialization—Several studies were made during this period bearing on reorganization of the foreign language curriculum to make it more functional in character and to integrate it with other more "social" aspects of the school curriculum. Kaulfers (397) reported the findings of the Stanford Language Arts Investigation with regard to the foreign languages. The philosophy of this investigation was that language is a social phenomenon and cannot be taught in its isolated aspects; that materials used must be justifiable from the cultural and social point of view; that language, as man's most indispensable social invention and instrument of thought, must be taught in relationship with other languages and their cultures; and that since literature is assumed to be the mirror of life and the treasure house of human experiences, great literary works must be evaluated by the student for their cultural content and contribution to the sum total of culture.

That newer textbooks reflect the increasing application of social purposes in language courses was arrived at in an analysis by Babbitt and Tharp (360) of cultural material in five grammar texts that are used in the first year of secondary-school French and that have been published during or since 1929. Their findings indicate that recent textual materials embody more cultural information than those published before the Coleman report.

References to French civilization are assigned to thirty-four subject categories and are listed in one column alphabetically and in another according to frequency of total occurrence in the texts.

A list of fiction books founded on French history was compiled by Cole (371) who selected them on the bases of difficulty, interest, and content for the high-school pupil. The books are listed by reigns of the different French rulers and should stimulate an interest in French history, thus integrating and enriching the foreign language curriculum. Reid and Reid (413) compiled an annotated bibliography of books on Spanish South America and the West Indies.

With regard to cultural reading material other studies may be mentioned. Mercier (406) analyzed a reading program with regard to choice of materials with a view to integrating the linguistic, literary, and cultural aspect of the work. Swain (419) sent a questionnaire to sixty-one colleges and universities regarding the range of courses offered in Latin-American literature. W. K. Jones (394, 395) prepared calendars of Latin-American and Spanish anniversaries. A bibliography of bilingual plays and other material for foreign language programs was compiled by Minton (409). The use and value of street cries, especially when integrated with music, were studied by the same author (410), who also furnished in his report a bibliography of articles and books dealing with the subject. Attention is called to a later paragraph on *realia*.

College preparation—Wittmann (430), studying the continuance in college of high-school foreign languages, found that the number of students continuing foreign languages in college is perhaps insufficient to justify a purely college-preparatory foreign language course in high school. As a result of her study she concluded that it might be wiser to consider the possibility of constructing high-school curriculums in foreign languages primarily for the noncollege preparatory student, providing necessary adjustments for the comparatively small number of students who will continue the language in college.

College curriculums—Foreign languages in the college curriculums were reviewed by Altman (359) who studied such questions as value to mastery of English, practical value, satisfaction with time spent, enjoyment of language study, enrolment trends, and other questions as set forth in investigations and surveys reported by others as well as by questionnaires administered in two classes at Nebraska. Altman concluded that a change of emphasis in content in order to increase the value of language study is necessary if languages are to hold their place in the modern curriculum.

Methods and Teaching Practices

The emphatic interest in methodology in modern foreign language is attested by the numerous studies bearing upon this phase of instruction. Abramowitz (357) tested the ability of two beginning classes in Spanish to recognize Spanish-English cognates, and concluded that book editors

cause many comprehension failures by assuming that these cognates will be recognized in all cases without study. The same author (355), after conducting an experiment in two classes, found that definite study of these cognates improved both Spanish and English vocabulary.

Negro classes—A distinct contribution to the knowledge of source materials, motivation, and methods used in teaching French to Negroes was made by Cook (376), who reported how French is taught at Atlanta University.

Homework—In an effort to determine the value of written homework in foreign language study, Abramowitz (356) tested the pupils of a second-term Spanish class after a period in which little or no homework had been done. He compared the results with those obtained after a period of intensive homework and concluded that the advantages accruing from compulsory written homework did not justify the time or effort expended, which might well have been used toward more beneficial language development such as that derived from extensive reading either in the vernacular or in the foreign language.

Grammar and syntax—Keniston (399) contributed a syntax list concerned with the syntactical usages occurring most frequently in contemporary Spanish prose. Bissell (362) examined an unspecified number of grammar texts (several are referred to, but not by title) and noted numerous errors and omissions, and pointed out the need for rewording and simplification of certain rules and usages. The results, however, are for the most part applicable at the higher levels of grammar study where advanced composition and "études de style" are included. The only one of a number of articles on the use of various verb tenses and other grammatical forms which represented an effort at research was an investigation by Britton (367) who sent out a questionnaire containing four hundred possibilities for the use of the *passé simple*, the *passé composé* and the *imparfait*. The great variety of answers received indicated a wide divergence in the use of these tenses by teachers and writers of French. One native Frenchman reversed his opinion after one month.

Realia and mechanical aids—A study by Pfeffer (411) attempted to trace the history of the theory and practice of the place of *realia* in modern language teaching. His report cites many references to articles and suggestions on how to make use of *realia*. Also, Heimers' lists (390, 391) are valuable for source materials of this nature. Varney (424) described the services of the French information center at New York. Increasing interest is evident in the study of visual and mechanical aids in the teaching of foreign languages. Bernard, Bond, and Brickman prepared bibliographies of motion pictures (361, 364, 366).

Reading

The interest which reading still holds for investigators in the field of foreign languages is evidenced by a number of studies and experiments

made during this period. L. A. Wilkins (428) observed and reported two results of the adoption, five years previously, of the reading objective in New York City. They were: (a) the stimulation to teachers to invent and to experiment with new technics; and (b) the added strength given to a justification of the subject through an objective readily demonstrable as worthwhile and attainable. Hatfield (389) conducted an experiment in which twenty pupils of an elementary Spanish class in junior college omitted written work, composition, and memorization. Class time was spent in oral and silent reading, listening to linguaphone records, vocabulary drill by derivation, systematic testing, and reports in English. At the end of six weeks, they had covered a total of 8,514 pages, or an average for each pupil of 425 pages (range: 215 to 913 pages). Hatfield noted growth in fluency of pronunciation as well as in interest and cultural understanding. Tharp (421) gave an analysis of the reading approach, including a description of experiments with this approach at the Universities of Iowa and Chicago.

A more specific inquiry into the question of the place and function of grammar in the reading approach was made by Ackerman (358). The subjects averaged thirteen to fifteen years of age, had an average IQ of 103, and half the class was retarded from 2 to 5.5 years in reading ability in English. Ackerman began with pronunciation and oral reading. Silent reading of graded materials was then introduced, with ample plateau material. After the first two months, the class time was devoted almost entirely to silent reading practice. Grammar was treated as vocabulary phenomena. By the middle of the third term, the class had read 500 pages intensively and from 300 to 500 pages extensively. Grammar was then introduced systematically and the fourth term was devoted entirely to grammar, dictation, and aural comprehension exercises to prepare for the New York Regents' examinations. The experimental group showed up about average on the Regents' examinations and other tests, and Ackerman concluded that a class cannot both attain high reading ability and meet the Regents' rigid grammar requirements.

Feldstein (381) reported upon the values to the language students of the foreign language publication of the New York City high schools, and Struble (418) described the research that went into her adaptation of *Les Trois Mousquetaires* (D. C. Heath and Co., 1936). This book was designed for use in the second-year high school as a class reader at the University of Iowa High School, the aim being "the gradual acquisition through reading practice of a controlled vocabulary of maximum reading utility."

Vocabulary and Idioms

Two studies (355, 357) already referred to dealt with the question of cognates. Another (316) dealt with vocabulary acquisition technics. Coleman (372) contributed an idiom list concerned with "what idioms and how many are the most useful for reading representative French texts." His

study was based on the master's theses of G. L. Lewis and Marie Johnston. The results, while not final, appear useful. A study of value to the teacher interested in making foreign language function in daily reading in the vernacular was made by Lorenz (402), who prepared a list of French, German, Italian, and Spanish words and phrases used in eight American periodicals in 1935. The effect of an understanding of root words upon reading-vocabulary building was studied by Tate (420) with a class of Grade VIII-B pupils. He found such understanding to be valuable, whereas the listing of words derived from the same roots without knowledge of what the root words were has no value.

The whole question of word frequencies was analyzed by West (425), who approved the *Interim Report on Vocabulary Selection* but concluded that there should never be any prescriptive list. His survey and evaluation of the different schools of thought and the varied arguments for and against the principle of "word frequencies" is noteworthy. Tharp (422) combined the original items of the Vander Beke French word list with all the items of the New York State French Syllabus, and the first third of the Cheydleur idiom list, plus some 500-odd selected additions for conversation, composition, and defining—mostly mechanical and environmental—and presented the list both alphabetically (in frequency groups) and classified as to parts of speech, by topical meanings and semantic values.

Success and Failure in Modern Foreign Languages

Two studies by Eckert, based on the sixth (378) and seventh (379) Cooperative Sophomore Testing Program substantiated the conclusions of the Modern Language Study with regard to the diversity of student attainment at a given level and the substantial overlapping among groups. Klein (400) made a survey in a New York City high school of the relation of subjects liked to failure and success. He found mathematics to be the most disliked subject and to contain the highest number of failures (46 percent). He found the first sixteen subjects on the least liked list and on the failure list to be the same, although not in the same order. Yaller (431) studied questionnaires returned by 166 foreign language teachers and 597 high-school pupils from all parts of New York City. Both teachers and pupils placed large classes as the main cause of failures and agreed on too difficult grammar as another cause.

Johnson (392) found that the results of a testing program agreed with those of earlier investigations showing that Spanish-American pupils in American high schools are more retarded than their American fellow pupils, have only about one-third the school enrolment of the same size English-speaking population, and have a definite general and special subject field vocabulary handicap.

Prediction of Achievement

Kaulfers (396) reported dubious results with prognostic tests after a survey of the literature. Steele (327) observed correlations of about .60

between teachers' marks in English and various foreign languages. He found five times as many failures in foreign languages as in English—16 percent and 3 percent, respectively. Steele concluded, "Pupils who make high grades in English do not necessarily make high grades in languages and vice versa." More optimistic are two studies, one by Blancke (363) who described the use of his text in connection with prognosis, and the other by Maronpot (405), who administered Symonds' Foreign Language Prognosis Test, Form A, to 170 beginning foreign language students and declared the Symonds' test to be highly predictive and superior to other tests used.

Achievement and Placement Examinations

A critical examination of long held assumptions regarding examinations in foreign languages is evidenced by the increase in the number of studies in this particular area of research.

College entrance requirements—Campbell (369) described an experiment in administration of college entrance testing at Catholic University in Washington, D. C., where a joint committee of test experts and foreign language experts produced a general comprehension test on reading French and German. This test relieved the language department of its burden of examining graduate candidates of other subject fields. M'Gonigle (404) compared college entrance examinations for the United States and the University of London with those of the University of Toronto (Canada) and deplored the fact that the Canadian institution was the only one of the three specifying the texts on which examination questions were to be based. She declared, "We teach, not French, but four textbooks."

Placement tests—Placement tests were the subject of two studies at the University of North Carolina, one by Stoudemire (417) and the other by Giduz (385). The advantages of using the new Cooperative French Test, Revised Series, Form N, are discussed in the latter study.

Technics and devices—Cheydleur (370) produced further evidence that the objective or new-type test measures the work of foreign language students more objectively than does the subjective or essay type of examination. Stock (416) studied current standardized tests and concluded that the old type of English-to-French sentence can be made as objective as the new type of completions, may be more concise—hence cheaper—and may suffer no more from irrelevant material. E. S. Jones (393) studied the purposes and types of questions contained in university comprehensive graduation examinations in the humanities by analyzing a wide sampling of questions made by professors in more than twenty major institutions. In romance languages and German, 17 percent of the questions were "essay" type and 46 to 50 percent were directed discussion; only 2 percent were objective items. Coleman (374) studied the correlation between the results of the final school examinations given in 33 New York high schools and results for the same pupils on the Regents' examinations, and

then studied the same question with regard to English and the social studies. He concluded that school examinations are out of line with the Regents' examinations and that either the former or the latter do not measure achievement in foreign languages. The implications are, of course, largely confined to language teachers in New York State.

Dissatisfaction with reading knowledge tests appears to be rather widespread. Through the use of a questionnaire of 11 items, responded to by 39 foreign language departments, Frantz (384) discovered that the reading knowledge tests now in use are still open to adverse criticism. There is a great divergence both in the form and in the manner in which they are constructed and administered at present; there also appears to be little agreement as to what constitutes reading.

Using Form 1934 of the Cooperative French Test, Ficken (382) made a study to determine to what extent a knowledge of grammar is necessary to reading comprehension by examining over 400 intercorrelation coefficients obtained from over 2,000 scores. The results are listed under: (a) descriptive findings; (b) tangible variables (such as sex, age, instructional emphasis, etc.); (c) evidence of the "laws of learning"; and (d) curriculum policy. This study appears to have been carefully executed.

Bibliographical Aids

No account of research in foreign language teaching would be complete without mention of the *Analytical Bibliography* compiled by Coleman and King (315). A large measure of credit must go to this great work for aid in the present review; its value as a source of informative and helpful articles to foreign language teachers is unquestioned. The compilation of bibliographical data, when carefully done, is a most important type of research, provided the content is significant and pertinent. Coleman and Hutchinson (373) listed under thirteen heads authors and their investigations of curriculum from December 1, 1933, to December 1, 1936. Kaulfers (398) prepared résumés of articles selected from various American journals dealing with general pedagogy and foreign language teaching. A compilation concerning sixteen well-known secondary-school courses in modern foreign languages, including the place of distribution and the cost of each course, as well as aims, tests, and requirements, was made by Miller (408).

Powers (412) prepared abstracts of about twenty articles for each year dealing with foreign language instruction. Young's bibliographies (432, 433), freely consulted in writing the present review, appear annually in the May issue of the *Modern Language Journal* and report research done the year before. Many of the better studies are also abstracted in the same publication by Tharp (421, 423). See also McDonald and Tharp's index to research (403). On page 426 of Wheeler and Hawes' list (426) is mention of a mimeographed tentative list of enrichment material for foreign language, written by Samuel Everett, director of the curriculum laboratory of the College of Education at the University of Illinois. This tentative

list was not available to the writer and has not been examined. Tharp and McDonald's summary (329) in the preceding cycle of the *Review of Educational Research* should be consulted. Heimers (390) contributed valuable bibliographies on teaching languages, including such areas as aptitude, general methods, and selection of textbooks. The United States Office of Education has made its annual contribution in the form of bulletins by Gray (387) containing bibliographies of research studies in education. Doctor's degrees in modern foreign languages are listed in Doyle's compilation (377). Other lists and bibliographies were mentioned in the sections on curriculum and methods.

German

C. H. HANDSCHIN

Enrolment

Heffner (443) found by questionnaire returns from 58 public high schools and 23 private high schools in various regions of the United States that four of these public schools and seven private schools offer a four-year course in German; 27 public schools and 11 private schools offer a three-year course in German; 23 public schools and five private schools offer a two-year course in German; and two public schools offer a one-and-a-half year, and two offer a one-year, course in German. Total enrolment figures showed that 86 percent of the pupils continued in the second year in private schools, but only 54 percent did so in public high schools.

Aims and Objectives

Heffner's study (443) also gave clues as to the aims of instruction in German. Instruction in grammar occupied 75 percent of the time of the first year in 54 percent of the public schools, and in 60 percent of private schools. In the second year at least 13 percent of the public schools and 13 percent of the private schools spent at least 60 percent of the time in grammar, and 24 percent of the high schools and 26 percent of the private schools gave at least 50 percent of the time in second-year grammar. Reading was begun during the first month in half of all schools. There was no private reading in first year in the great majority of schools. Private reading in second year was done in 56 percent of the public schools and in 30 percent of the private schools. Oral work consumed about half the class time in second-year German in both public and private high schools. *Realia* were used less often than might be desirable: about one-third of all the schools used none in the first year.

Teaching Practices and Course Organization

Tate (452) conducted two experiments with equated groups of Grades VIII-B and VI-B pupils to evaluate two methods of studying English words: (a) by studying word-roots, and (b) by studying English words similar to those whose roots were studied but without a knowledge of the

roots involved. Testing was done with the New Stanford Reading Test, Form V. Method one was found to have considerable value in increasing the reading vocabulary of students in Grade VIII-B when continued for a four- to five-month period, whereas the second method, used with grade VI-B pupils for the same period, showed no such beneficial effect. This test may throw light on the learning of vocabulary in modern foreign languages.

For pedagogical reasons, attention should be called to two studies of German idioms which contain valuable suggestions for teaching this difficult portion of vocabulary: Radimersky (447) and Willey (456); and also to two bibliographies that are of value to students of scientific German, Dickey and others (437) and Handschin (440).

Scientific German—Vail (453) gathered data about scientific German courses by a questionnaire from representative colleges and universities throughout the United States and reported that 117 of 151 colleges were offering a scientific German course involving a two-year prerequisite. Intensive reading of 50 to 1,000 pages was usual, the mode being 200 pages. In 78 of the institutions, no outside reading was done; in the rest, 100 to 1,000 pages of outside reading was the rule. Translating was the prevalent method used in instruction. Edited texts were used as a rule, with science periodicals as outside reading. Chemistry and premedical texts were most used, with biology and physics next. Kamman (444) studied the offering in scientific German and French in 238 college catalogs. Fifty-five reported a scientific German course, the mode being a two-semester, three-hour-a-week course. Translation was the prevalent method of instruction in both.

Vocabulary—Wooley (457) is conducting an important experiment in German vocabulary learning for which he constructed a new word list from the vocabularies of 25 grammars, 25 prepared readers, 25 elementary reading texts, and 25 advanced reading texts. He asserted he had greater spread than was had on the Kaeding-Morgan list and the Minimum Standard Vocabulary List developed from Kaeding-Morgan. No detailed list of the texts analyzed for his list was found. The number of running words covered was 11,000,000. The list so established contained 40,000 words, from which Wooley selected the 2,000 most frequently used and checked them against "three other lists"—which are not named—and rejected "some of the words" not found on any of the three lists. Wooley grouped the 40,000 words into 2,350 word families, experimenting further with the 10,000 most frequently used words by testing successive classes and individuals on them. His results may point the way to vocabulary learning by families or derivative groups of words. The method of selecting the vocabulary, however, is open to question, as studies of word frequencies have shown that the vocabulary of grammars and elementary books is not carefully selected. Besides reasonable spread—Wooley's vocabulary has a guaranteed spread of 100—frequency is the principal criterion.

Content of the German Course

Stockhausen (449) classified and tabulated the cultural material in German reading texts, using the technic previously employed by Gertrude M. Gilman and others. The texts studied were the first four books of the Hagboldt Graded German Readers (D. C. Heath and Co.), also Storm, *Immensee*; Von Hillern, *Höher als die Kirche*; Hennings, *Klein Heini*; Kastner, *Emil und die Detektive*. Her conclusion, based on the counts of items, "references," and "mentions" is that the cultural content of the first mentioned series is not high, whereas that of the others is.

Russell (448) concluded from his detailed study of simplified reading texts in modern foreign languages that it is necessary to simplify reading materials for elementary foreign language students. Vocabulary and idiom content must be graded according to established technics. A freshman college class can learn to read sooner and more accurately when using such graded materials.

Prediction of Achievement

One study not previously reported, although antedating our period, is that of Sister Virgil (454) who found prognosis tests to be of limited predictive value. Results on her own Prognosis Test yielded correlations of .46 to .24 with the Columbia Research Bureau German Test given the same pupils at the end of the course. She reported also that the results on Symonds' Modern Foreign Language Prognosis Test (450) did not give evidence of high prognostic value. The best single predictive measure seemed to be the Iowa Foreign Language Aptitude Test. Tallent (451) found that no coefficients of correlation for (a) modern foreign languages and IQ, (b) modern foreign languages and English placement test scores, and (c) modern foreign languages and English grades are significant.

Tests and Testing

Kurath and Stalnaker (445) tested the value of best answer and context types of tests. The latter proved only slightly superior when measured against teachers' marks. Peebles (446) found by a test on German life, administered to 224 students in three high schools, median scores of 19, 21, and 42 respectively, for first-year pupils; 21, 36, and 55 in case of second-year pupils; and 52 and 58 in case of third-year pupils (in two schools). Handschin (441) appended true-false tests to each chapter in his work on German civilization. Norms of achievement are being established. Cheydleur (436) reported evidence of the unreliability of the subjective type of test. The use of the objective type of tests over a long period and with great numbers of students at the University of Wisconsin has resulted in economies in student and teacher time. The new type of test may also be used for placement in lieu of the usual method of relying on high-school grades and IQ's of entrants.

Among the standardized tests now available the American Council Cooperative German Test, Revised Series, Advanced Form P (434) is designed for groups who have had four semesters or more of high-school work, or at least one year of college work. American Council Cooperative German Test, Form 7 (435) follows the plan of the preceding test. Part I contains 80 multiple-choice all-German completion exercises. Part II contains 100 multiple-choice all-German word-matching exercises. Part III contains 100 multiple-choice grammatical completion exercises. Achievement standards may be had upon application to the Cooperative Test Service.

Bibliographical Aids

Among bibliographical aids may be mentioned Engel's list (438) of radio stations broadcasting modern foreign languages in the United States; also an article by Goding (439) on pedagogical uses of phonograph records, and lists of titles, manufacturers, and prices of such records for French, German, Spanish, and Italian. A recent bibliography of research in modern foreign language down to June 1939 is to be found in Handschin, *Modern Language Teaching* (442); this work also contains discussion and bibliography of tests and of research to the date mentioned.

CHAPTER IV

Handwriting¹

FRANK N. FREEMAN

THE PRECEDING REVIEW of handwriting research appeared in the April 1937 issue on "Curriculum." The amount of research in handwriting since 1937 is not large and the greater part of it is of minor character. Some of the reports included in this review are not based on original research, but are analytical discussions based on psychological or other scientific facts or principles. In view of the meagerness of the research in the strict sense of the word some such reports are included.

Methods of Teaching Handwriting

Two summary articles review contributions of research to handwriting. In the first article Freeman (462) wrote a semipopular review of investigations of handwriting, particularly as they apply to methods of teaching. The review is arranged to provide the answers to the chief problems of teaching. In a second article, the same author (463) reviewed particularly the scientific evidence concerning the growth of ability, the development of general motor ability, and of the special ability which is required in handwriting.

Another series of articles provide discussions of method not based directly upon research but making use of the psychological and scientific conceptions which have been derived from research. In the first of these Cole (458) presented the principles or assumptions on which she believed current teaching of handwriting to be based. She then offered her own opinion on the issue raised, based upon the fruits of psychological and educational study. A reply to this article, in which the assumptions listed by Cole have been questioned, is offered by Freeman (464). Cole (460) published another article in which she described method and results of the teaching of handwriting by the analysis of errors. The outcome of this method as reported in the article is very encouraging.

Another review of current methods, with particular emphasis upon the desirability of developing individuality and with illustrations of individual styles of writing is contributed by Freeman (465). An analysis of the requirements of left-handed pupils and of the adaptations which should be made to the requirements of the left-handed pupil was provided by Cole (459).

Manuscript and Cursive Writing

As has been the case in recent years, a number of studies in the field of handwriting have been devoted to some phase of the problem of manu-

¹ Bibliography for this chapter begins on page 172.

script writing. The majority of these studies are of minor character but most of them point in the same direction. A survey of the extent of the use of manuscript writing and of the grades in which it is commonly used was made by Drohan (461). A general review of the investigations and a summary of the description of procedures was furnished in a bulletin written by Griffiths (467). Several studies bear upon the ease with which manuscript writing is written, particularly by younger pupils. Hildreth (468) measured the ease of writing in first-grade children by recording the rate at which they copy tests written in the two forms. The somewhat controversial question of speed of manuscript and cursive writing was studied by Washburne and Morphett (476). They compared the rate of manuscript writing in children in successive grades with the Ayres' norms. Contrary to the findings of most studies, they found that manuscript writing is slower than the norms up to and including Grade VI and exceeds the norms in Grades VII and VIII. Adults write somewhat more slowly in manuscript than in cursive writing. The authors also find that children who use manuscript writing can learn to read cursive with a moderate amount of practice.

Effects on other subjects—Several studies dealt with the effect of manuscript writing on achievement in other subjects. A rather elaborate study by Varty (475), based upon tests of 448 children who used manuscript writing and 663 who used cursive writing, was made to determine the attainment in spelling of those who used the two styles. The study was made in the public schools of New York City in Grades II and III. Care was taken to match groups and individuals. No significant difference in spelling ability was found. Previous opinions have been that manuscript writing is favorable to spelling. These opinions were supported by a minor study by Lindahl (471). Varty's study appeared to be fairly conclusive as far as the second and third grades are concerned. However, if manuscript writing is favorable to spelling, the effect would probably appear in the first grade, which was not included in this study. Furthermore, the author did not give us the comparative attainment of the manuscript and cursive writers at the beginning of the second grade. A small study, based upon two classes, was made by Houston (469) for the purpose of ascertaining whether manuscript writers learned to read more rapidly than cursive writers. This study confirmed previous ones to the effect that manuscript writers are superior in reading. The use of manuscript writing for the retraining of post-encephalitics was described by Tompkins (474).

Miscellaneous Problems

Several studies deal with problem cases in handwriting. Two of these involve the question of handedness. A study by Kirk and Kirk (470) investigated the question whether the example of left-handed writing by the teacher on the blackboard produces more reversals than is common. No such effect was discovered. The analysis of several cases of inverted writing which throws light upon the treatment of this type of anomaly was con-

tributed by Scheidemann (473). Roman (472) dealt with the question of the relation of stuttering to abnormalities in writing. The question of racial differences in writing is a part of the general problem of race psychology. Comparisons between the writing of 515 white children and 550 Negro children was made by Garth and others (466). The comparison included speed and quality. In several of the grade groups and in some of the tests there were slight differences between the two groups, but taken as a whole, the attainment was approximately equal.

CHAPTER V

Spelling¹

ERNEST HORN and PETER L. SPENCER

PARTIAL SUMMARIES AND REVIEWS of researches in this field have been published in the *Review of Educational Research* since September 1936. McKee (489) summarized thirty-three studies relative to the spelling curriculum. Breed and others (479) reported the findings of eighty researches relative to special methods and the psychology of spelling.

In addition to these the interested reader will find comparable summaries reported in other sources. For example, Breed (477) reported annually "selected references" on spelling in the October issue of the *Elementary School Journal*. Horn (485) discussed the contributions of research to procedures and materials for spelling instruction. Four problems with spelling were stated: (a) the problem of discovering the word forms most commonly used in written discourse, (b) the determination of the content, arrangement, and sequential order of the spelling tasks among the several school levels, (c) the development of effective methods for instructing and for learning how to spell, and (d) the development and application of instruments for the measurement of achievement with spelling. Hildreth (484) stated the implications of researches in spelling for classroom teachers.

Vocabulary for Spelling

Perhaps the most significant contribution made with regard to the vocabulary aspects of spelling within the past three years has been the emphasis upon the so-called "semantic" phases of the problem. Rinsland and Moore (492) reported a study of some six million running words used by elementary-school children. This group was found to contain some 25,634 different words. This study is being continued to determine the meanings which are attached to the word forms as used. Lorge (488) and Lorge and Thorndike (487) reported a similar study of the frequency of meanings associated with multimeaning words used in a "representative sample of English and American writing." Such studies are designed to enable educators to select and to arrange for instruction the most important word forms and to provide for association with the various word forms the most common and important concepts which they are used to represent.

Horn (486) discussed a number of pertinent issues with regard to the selection of vocabularies of word forms. He reported a study of three criteria as applied to adult vocabulary lists. They are (a) the occurrence of a word form in the vocabularies pertaining to a number of activities, (b)

¹ Bibliography for this chapter begins on page 173.

the geographic distribution of the common word forms, and (c) the permanency of the form of the common word symbols. He concluded that the common word forms usually included in basic vocabulary lists have wide occurrence within the vocabularies pertaining to different activities, that they are geographically widespread in their usage, and that they are relatively permanent in form.

Breed (478) treated of these and other points in a more general consideration of the problems of the selection and gradation of spelling vocabularies. Among major problems he classed (a) the determination of the size of vocabulary of word forms, (b) the relation of adult and child usage of particular word forms, and (c) the need for further researches. He classed as minor problems the relation of (a) rural and urban vocabularies, (b) the geographic influence upon the frequency of occurrence of particular word forms, (c) the differences among the vocabularies used by the same person when satisfying different purposes, and (d) the problem of selecting spelling materials on the basis of misspellings as compared with the frequency of use. He formulated a statement of principles and technics for word form selection.

Seegers (494), as chairman of a committee of the National Conference on Research in English, reported a digest of an extensive investigation of researches on vocabulary made since 1925. The report considered other aspects as well as those concerned with spelling. It constitutes a valuable source for anyone interested in this field.

Factors Affecting Spelling Ability

A review of available material on spelling instruction published during the years 1936-37 was reported by Capron (480). She included a considerable variety of studies but she found substantial agreement to the effect that single causes for spelling difficulty are rare. Considerable agreement is evident for the belief that groups of physical, intellectual, emotional, environmental, and instructional conditions operate as factors in spelling ability.

Gates (482) conducted an experimental and statistical study to determine (a) a list of the most commonly taught words, (b) the mean of the grade placements assigned to the several words in the different listings, (c) the grade levels at which specified percents of students associated certain meanings with the respective word symbols, and (d) the characteristic errors with misspellings of the different word forms. Irrespective of what factors may have caused the misspelling, the products appear to have some significant general characteristics. Approximately 4 percent of the words produced no characteristic difficulty. One and only one "hard spot" or area of difficulty was evident in the spelling of about 70 percent of the words. Nearly one-fourth of the words appeared to have two "hard spots," and a "negligible number" had more than two characteristic areas of difficulty. The potentiality of the "hard spots" to produce errors is indicated

by the fact that in about 78 percent of the misspellings the mistake was made in the area of "hard spot."

"It is easy to observe difficulties in spelling but difficult to understand why they exist," stated Russell (493:7). He conducted a study of the characteristics of good and poor spellers with regard to the process of learning to spell and with consideration for the factors which were presumed to be associated with spelling disability. Both group and individual or case-study technics were utilized. With regard to "constitutional factors," with few exceptions only slight differences were disclosed between the characteristic conditions of the good and poor spellers. Attention is called to the fact that this statement does not imply that such factors may not be of great significance in individual instances. Academic factors disclosed the major number of reliable differences between the two groups. Methods of study were not widely different, but it appears that the poorer spellers tend to use more unthinking forms of attack.

Teaching Methods and Testing

Tyler (495) investigated the problem of learning to spell words as a secondary or incidental phase of instruction designed more particularly for other accomplishment.

Comparative values of a pupil self-study method and a "modern systematic method" for teaching spelling were investigated by Dupee (481). The report indicated that the pupil self-study method produced more rapid learning with approximately comparable retention. The study was conducted in Grades III-VI.

A more restricted study of learning was conducted by Harder (483). Using pupils in the third and sixth grades he investigated the relative efficiency of a "separate" and a "together" method for teaching homonyms. Certain of the pairs appeared to be inconsistent with the more general pattern. In general the "together" method seemed to give better results when measured by immediate recall. The "separate" method was consistently superior when measured by delayed recall.

Moore (490) and Northby (491) investigated the uses of different types of tests for diagnostic purposes. Their results appear to indicate that there is great variability between pupil's responses to different types of test devices. Similarly, some words appear to offer greater difficulty in one type of test than in another. In general it appears that the different forms of tests investigated measure somewhat different aspects of the spelling task.

CHAPTER VI

Speech¹

PETER L. SPENCER and ERNEST HORN

TO BE COMMUNICATIVE spoken language needs to be heard and comprehended. Rankin (505) some years ago called attention to the importance of listening ability in the communicative behavior of adults. For the persons studied in his investigation, about 42 percent of the time spent in communication was devoted to listening. Speaking ranked second among the four aspects of communication studied. His results showed that approximately 70 percent of the time under investigation was spent in some form of communicative behavior. He concluded that "oral language stands out very conspicuously as being the most used form of language."

That speech arts have lately come to receive more attention from research students is attested by Knower's indexes (502) of graduate work in that field. He has reported some 2,242 advanced degrees earned in the speech field. About 90 percent of them have been granted within the last ten-year period.

Young (507) investigated the relationship of comprehension and retention with reading printed word symbols and comprehension and retention with "reading" the spoken word symbols. He concluded that there is general similarity between the respective abilities with the two word forms. Younger children appeared to show a difference in favor of spoken words.

The question of the effectiveness of spoken words presented with or without the speaker being present was investigated by Loder (504). The results appear to show that the speaker's presence produces a greater net gain in immediate recall but retention tests applied later indicate little difference between the products of the two methods.

Common and differential factors in the reading (visual) and hearing vocabularies were studied by Anderson and Fairbanks (496). They concluded that vocabulary ability appears to be a general function which operates usually independently of the mode of presentation, but they found, however, that "one attribute of poor reading is inability to recognize words visually, although the reader may understand these in hearing them."

The importance of the auditory memory span in speech development was studied by Anderson (497). He concluded that the auditory memory span, particularly as applied to vowel sounds, seems to be independent of phonetic training or of a foreign language environment. His findings were interpreted to indicate a relationship between language skill and the auditory memory span.

Implications for improving methods of language control may be inferred

¹Bibliography for this chapter begins on page 174.

from a study reported by Johnson (501). Children ranging in age from two and one-half to eight and one-half years were used as subjects. In general, more and better compliance resulted when the verbal directions were positive, specific, simple, direct, pleasant, hopeful, and approving.

Rogers (506) concluded that phonic training is an effective technic for the improvement of pronunciation at the college level. She found that on the average 78 percent of the mispronounced words were also missed in meaning.

Kuhn (503) conducted an investigation of the improvability of pronunciation of five English vowel sounds with freshman college students serving as subjects. That speech instruction is best conducted by direct methods was reported by Borchers (498).

Zeimes (508) pointed out the need for a better technic for differentiating speech deficient pupils. In a school survey, teachers reported only 14 instances of such deficiency, whereas examination by a specialist revealed 250 cases, 84 of whom were in serious need of attention. Evans (500) reported a speech survey made at the ninth-grade level. A suggestive study of the persistence of errors in oral reading at the fourth- and fifth-grade levels was conducted by Daw (499).

If this brief and obviously incomplete review of selected studies in the field of speech serves to direct attention to the need for further work in that area, as well as to indicate and acknowledge the valuable types of investigations which have been conducted, it will have served its purpose. Speech and hearing as aspects of language are in need of more consideration in the schools.

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